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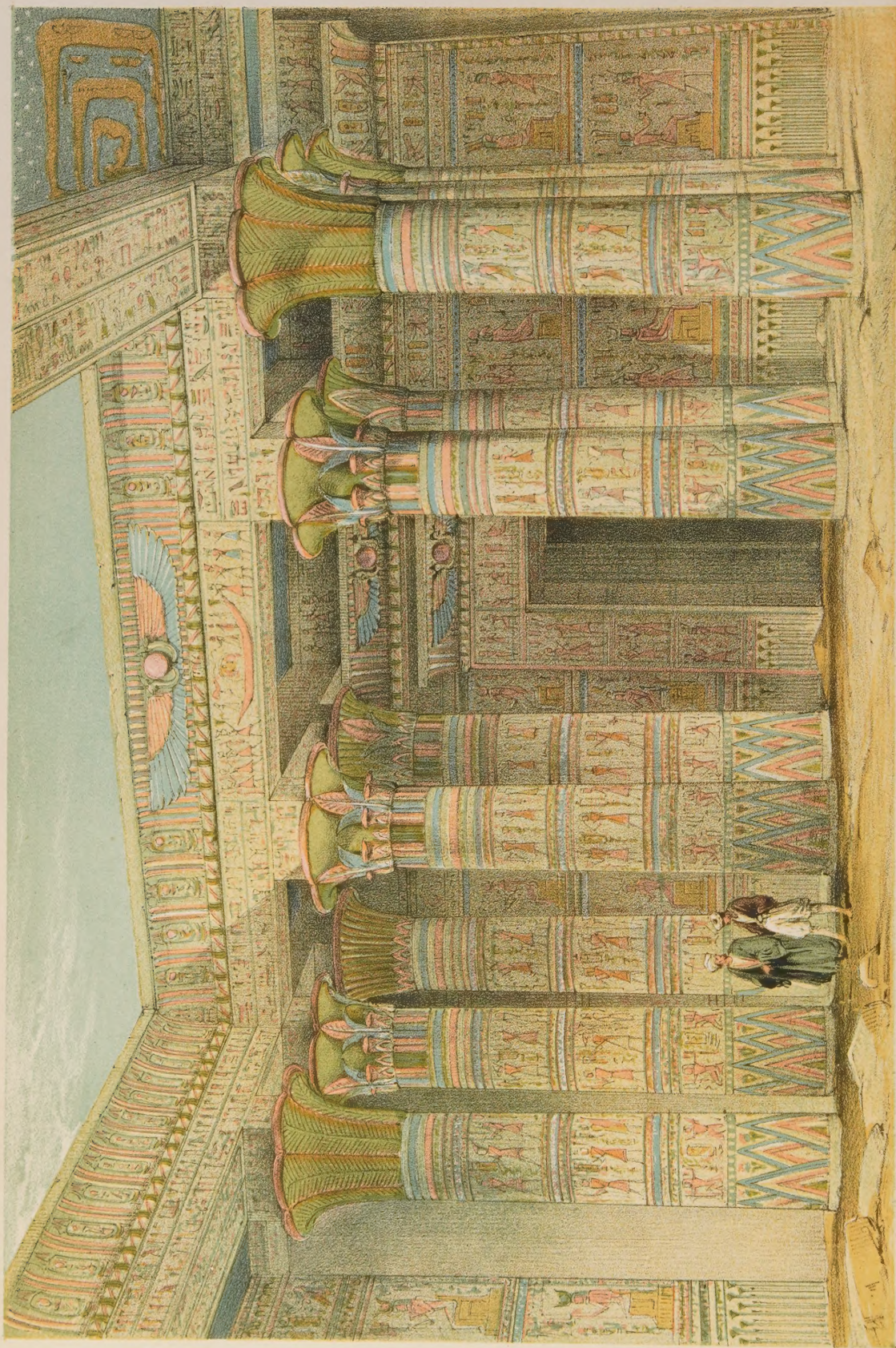
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59
AN HISTORICAL INQUIRY

INTO THE

TRUE PRINCIPLES

OF

BEAUTY IN ART,

MORE ESPECIALLY WITH REFERENCE TO

ARCHITECTURE.

BY

JAMES FERGUSON, ESQ. ARCHITECT,

AUTHOR OF

"AN ESSAY ON THE ANCIENT TOPOGRAPHY OF JERUSALEM,"
"PICTURESQUE ILLUSTRATIONS OF ANCIENT ARCHITECTURE IN HINDOSTAN,"
ETC. ETC.

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TO

JOHN GRAHAM LOUGH, ESQ.

SCULPTOR,

THIS WORK IS DEDICATED,

IN TOKEN OF ADMIRATION FOR HIS TALENTS

AS AN ARTIST,

AND OF ESTEEM FOR HIS CHARACTER

AS A MAN,

BY HIS SINCERE FRIEND,

THE AUTHOR.

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PREFACE.

It is not often, I believe, that an author has presented his work to the public so fully impressed as I am with his own inability to do justice to so ambitious a task as he has undertaken, and, consequently, so fully aware of the many defects that must exist in the mode in which it has been carried out.

In the first place, few men have, either from education or the professional pursuits of their life, been less prepared for such a work as this. From boyhood I was destined to the desk. From school I passed to the counting-house; from that to an indigo factory — of all places in the world, perhaps, the one least suited for a cultivation of any knowledge of the fine arts; from this to become an acting and active partner in a large mercantile establishment, from the trammels of which, in spite of every endeavour, I have never been able to free myself; and during the time this work has been in hand I have written, and, perhaps, also thought, more about the state of the money-market, indigo, sugar, silk, and such-like articles, than I have regarding architecture, painting, or sculpture. This, in ordinary times, would only have delayed the work, and rendered its completion less speedy; but the last eighteen months have been times of anxiety and distress to every one connected with mercantile pursuits, and more especially to those connected with the East. All those with whom I was formerly connected have succumbed one after the other. The whole edifice under whose shade I have passed my life has been swept away, and there has been nothing but ruin and misery around me. Under these circumstances I do not feel surprised that I have not been able to devote myself to the task I have undertaken with that undivided attention and wholeness of purpose which are necessary for success, and I am already aware of the many rugosities and blots that have, from this circumstance, crept into the performance. These, however, are principally to be remarked in inelegancies of diction and faults of style, which may sometimes render the meaning somewhat obscure; or in repetitions of the same thing, which are unnecessary and unpleasing. Such defects as these can easily be remedied in a second edition, and, in the meanwhile, their worst effect

will be to expose their author to a certain amount of cavil and castigation (for which he is perfectly prepared), but cannot either affect the main purpose of the work nor mar its ultimate success, if it is of that stamp which I proposed to myself it should be when I commenced it. For this I care little—perhaps less than I ought to do; but I shall feel much regret if preoccupation have prevented my stating my general argument with that clearness and conviction with which it exists in my own mind, and as I consequently could have stated it under more favourable circumstances.

Another disadvantage of my mercantile pursuits has been the practical exclusion it entails from the best class of intellectual or artistic society. There are few points connected with this work that I should not have wished to talk over with those who may have made that subject their special study; and, more than this, it would have been an incalculable advantage had I been able to submit my views to any friend who was capable of understanding them, and would have taken the trouble to advise me regarding them before submitting my work to the public. Unfortunately, however, I know no one whose advice I could ask, or whose assistance I could enlist, and I have been obliged, consequently, to plan and write this book by myself and for myself, and to carry it out, in all its details, single-handed; and I need scarcely add how much this defect is necessarily felt throughout the work.*

At one time I hoped that my previous publications might have remedied this last defect, and given me that introduction to literary society which might have entitled me to ask advice and assistance. They, however, have failed in this as in other respects; and if this work ever benefit by such assistance, it must be through its own merits: it cannot, however, be aided now by the kindly advice of friends, but through the criticism of the press; which though, perhaps, as salutary, is certainly not so pleasant a mode of having its errors expunged. If, however, a malady cannot be prevented, a man should not refuse a medicine because its taste is disagreeable, and prefer the pink draught of a fashionable apothecary, whose innocuous sweetness renders it so favourite a prescription in the hands of a considerate and tender-hearted friend.

I do not state these things in extenuation, but in explanation, of the defects of my work. I have not written it in a style to deprecate criticism, and I am not so inexperienced in the ways of the world as to suppose that I am to be allowed to attack time-hallowed prejudices, and put forward confidently my own heretical views, without meeting with opposition both fair and unfair. I have entered the lists and thrown down my glove to all comers, and certainly not in the expectation that it is to lie there. On the contrary, I shall be disappointed if it be not taken up by some strong man. I shall be surprised if he

* I must not, however, omit to mention my obligations to Mr. E. Norris, of the Asiatic Society, whose knowledge of languages, and their affiliation, surpasses that of any one I know of, and is only equalled by the disinterested liberality with which he places his stores of learning at the disposal of

others, using none of them for his own advantage. The Ethnographical part of this work owes much to his communications, and I only regret that they were made verbally, and in such a manner as to prevent me acknowledging them more specifically.

do not deal his blows as thickly and as heavily as his strength will admit of. From the circumstances above stated, I am aware that I am not armed for the combat as I ought to be, or as in other circumstances I might have hoped to have been: there are imperfections in my armour which a quick-sighted antagonist will not fail to detect, or to take advantage of; and I may, in consequence, be worsted again, as I have been before. A man, however, must have much less confidence in himself, or in the goodness of his cause, than I have, who is defeated by the loss of one, or two, or a dozen battles. If I know myself, there are few things I can so easily forget as a defeat in such a cause, and few that would less influence my conduct when I feel that I am right. And as everything I have stated in this work is the result of long thought, and of the most heartfelt conviction, so far as I individually am concerned; and as, besides, I believe it would be a very great benefit to society in general if the doctrines here enunciated were appreciated and acted upon, it is not a little that would disgust me with my present course, nor deter me from following it as long as I am able to do so.

Another, and perhaps the most serious defect of this work in its present form, is that it is only a fragment. The theory of art which runs through every page of it was elaborated from a study of Indian, Mahomedan, and Gothic architecture, with which I am personally far more intimately acquainted than with the styles enumerated in the present volume; and it is from them, and them only, that I should have wished to choose my illustrations: as it is, the theory elaborated from one style I have applied to another, and though it confirms all I have to say, the argument will neither be complete nor properly intelligible till the whole series is gone through. The Second Part is the one, however, on which the main argument rests, and is the one that I would most willingly publish alone, had I only my own convenience in view. The subject, however, could not be complete without the first; and besides my own inability, at the present moment, to carry out the whole work single-handed, I am not sorry to keep back the second part, that it may benefit by the criticism that may be bestowed on the first. This is not a pleasant, nor, personally, a satisfactory way of placing a new theory before the world, but under the circumstances it is the only one that is open to me.

Against these and many other unfavourable incidents of a personal nature, which I need not recapitulate, I can only plead, as a reason for obtruding such a work on the public, an intense love of my subject, which through life has rendered it to me an object of constant thought and study; and as indifferent health and ungenial pursuits debarred me from sharing in the amusements of those I was surrounded by, I seized every leisure moment to cultivate these tastes, which through life I have found to be sources of unfailing delight, and of the most enduring support in every trial: so that, though unprepared for it by education, I have spent perhaps as much of my time, latterly, in the study of the subject as most men have been able to do.

I have also had the good fortune to spend the best years of my life in countries where Art, though old and decrepit, still follows the same path that led it

towards perfection in the days of its youth and vigour, and though it may be effete, it is not insane. In the East, men still use their reason in speaking of art, and their common sense in carrying their views into effect. They do not, as in modern Europe, adopt strange hallucinations that can only lead to brilliant failures; and, in consequence, though we may feel inclined to despise the results, they are perfection itself compared with what we do, when we take into account the relative physical and moral means of the Asiatic and the Anglo-Saxon.

If, at the same time, I have not read so much as many of my contemporaries, I have travelled a good deal; and as I always travelled alone, with only one object in view, I have had leisure to see a great deal of art; and, what is of far more importance, I have had time to think over and reflect on what I saw. For months together I lived among buildings and the works of art they contain, and I have looked on them long and steadfastly, and until I could read in the chisel marks on the stone the idea that guided the artist in his design, till I could put myself by his side, and identify myself with him through his work, I never felt satisfied.

A course of study pursued among the products of art themselves in this manner, I have found far more instructive than books of theories are, or perhaps ever can be; and I believe all would find it so if they could follow it in such circumstances as would prevent their being influenced by the errors of bad education, or free them from the trammels of the stereotyped opinions of the age.

The belief that it has been so to me induces me now to publish the result of my experience. I believe I see the path which other and cleverer men have mistaken; and as the veriest cripple who progresses in the right direction will beat the strongest pedestrian who chooses a wrong path, I trust to being able to instruct even those before whose superior knowledge and abilities I would otherwise bow in silence.

The work, when complete, is intended to consist, first, of Part I. which is that contained in the present volume, consisting of an Introduction, pp. 174; an Essay on Egyptian art, pp. 83; on Western Asiatic art, pp. 66; on Grecian art, pp. 108; on Etruscan, pp. 35; and finally, on Roman art, pp. 40.

Part II. is intended to contain, 1st, an essay on Eastern Asiatic art, from the earliest times to the present day, comprising a sketch not only of the Buddhist and Hindoo styles of the peninsula of India, but also of the neighbouring countries of Affghanistan, Ceylon, Burmah, and Thibet, and extending also to Java and China,—say 100 pages.

2d, An essay on Mahomedan art from the Hegira to the present day, and from the banks of the Ganges to those of the Guadalquiver; occupying, probably, about the same number of pages.

3d, On Byzantine art from the age of Constantine, through the Greek and Russian styles, to the present time; say 50 or 60 pages.

4th, On Gothic art from the time that Christianity was introduced into the Western Empire till the Reformation, including of course the Romanesque and

Lombard styles, as also the modifications of the art in Spain and Scandinavia ; 200 pages.

Lastly, A chapter devoted to lesser and exceptional styles, such as the Druidical, Mexican, &c.

The Third Part is intended to consist, first, of a history of the monkey styles of modern Europe, from the time when men first began to copy, instead of thinking, till the present time, when they have ceased to think, and can only copy—including all the variations of that strange art, from Seville and Sicily, to Stockholm and St. Petersburg. Together with a critique on the modern Schools of Art on the Continent, as well as in this country. Say, pp. 300.

And secondly, an epilogue, forming the counterpart of the Introduction ; being, in the first place, a *résumé* of the argument in the preceding part, and deductions drawn from the facts stated in the text. And lastly, practical suggestions for the improvement of the present Schools of Art, and an essay on its future fate and prospects. Say, pp. 200.

Some may be inclined to think the Introduction too long, and somewhat irrelevant. I thought so myself at first, and would willingly have dispensed with it. I found it, however, impossible to render my subject intelligible without going into all the detail there entered into ; and for any one who really wishes to understand the subject, I think it likely that it will be found too short, rather than too long. If any one, however, is repelled by its aspect, he may pass it over in the first instance ; but I am mistaken if he does not return to it. For my own part, I consider it the text, and the rest of the work merely the illustration of what is there stated.

It may also, perhaps, be thought that I have dwelt more on the chronology of Egypt than is requisite in a treatise of this sort ; but I feel convinced that the subject is quite unintelligible without distinct views on this branch of the inquiry ; and though I am, perhaps, judging from my own preconceived predilections, and from the time and labour I have bestowed on this part of my subject, I cannot help thinking that the views enunciated in that part of the work are as important as any contained in it, and as well worthy of attention. Had the work been intended as a merely popular one, this, and much more, might have been omitted ; but it has been written from better motives, and with aspirations so high as to lead me often to neglect much which might have added to its pleasantness or polish—not that I despise, or would willingly overlook, these minor elegances, but merely that I do not think it worth while delaying the publication—perhaps stopping it altogether—in the hope that I might bestow on it all the polish of which it is capable. I know that in this respect I can do better ; but little as I am satisfied myself with the work in its present form, I am mistaken if it does not belong to a class of works that is much wanted in our literature, and if it is not found to contain statements and views which will redeem many minor defects, either in the mode or diction in which the argument is expressed. Others must judge of this ; but it is this belief that induces me to publish it now.

The Second Part might, but for the reasons stated above, appear as soon as the woodcuts could be engraved and the text printed. The MS. is in a sufficiently forward state for it to be commenced on at once, and it shall appear as soon as it is demanded; in the meantime, however, there is no cause for haste. The work is not one, I fear, likely to earn either a sudden or extensive popularity. I might, perhaps, have made it otherwise; and had I condescended to fill it with the usual twaddle about classical or mediæval perfection, I might at least have enlisted a numerous body of adherents to assist me in fighting my battle, instead of standing utterly alone, and in opposition to almost every one. I have, nevertheless, the most unbounded confidence in the rectitude of my views and the goodness of my cause: and do not, in consequence, fear the ultimate result. I have the strongest faith in the common sense of the Anglo-Saxon race, and in their power to excel in art, as they have done in everything else which they have tried in earnest. And I have a still sterner and stronger belief in the superiority of honest Protestant Christianity, as compared either with Pagan classicality or mediæval Romanticism, and cannot for one instant doubt the triumph of the former when it puts forth its strength.

These are harsh and unfashionable doctrines, and likely to enlist all educated men against my heresies. But before I die I trust to seeing them better understood and appreciated; and also to leaving this work behind me in a very different form from that in which it is now presented to the public.

In the meantime, I, at least, am in no hurry. I have already put aside entirely the subject of this volume—every spare thought, and every spare moment is absorbed in the science of fortification—and my head is wholly filled with walls of brick and mounds of earth of the most murderous form, and most utilitarian ugliness. Instead of beauty and the gentler arts of peace, it is war, and the art which admits of less beauty than any other in the whole range of human inventions. I can and must employ my mind with this and similar pursuits till happier times and more auspicious circumstances enable me to return refreshed to the object of my earliest affections.

My work on Fortification will soon be finished, and when it is published I hope I may return to this subject. For if I am not deceiving myself, I believe I may do good service to the arts of my country, by placing the whole argument before the public. And if I can point out a path by which artists may reach to loftier aims than have hitherto been presented to them, and give the public a better standard by which to judge of the merit of works of art, I shall have accomplished the end I have aimed at, and done what, in the eyes of every one whose opinion is worth having, will excuse even a more imperfect performance than this is, even in its present form; though that, I trust, is not, or at least is not intended to be, its final one.

INTRODUCTION.

PART I.

It is now nearly a century since J. J. Rousseau announced to the world the bold paradox, that the sciences and arts had served only to debase and corrupt mankind, and that almost all the vices incidental to a state of civilisation could be traced to their pernicious influence.

There was a boldness and originality in the attempt that roused the attention of thinking men, and a wild eloquence in the language in which it was enforced, that overawed his contemporaries, and convinced them, that if they were not listening to the logical deductions of a philosopher, what they heard was at least the inspiration of a high order of genius; and in an age of sceptical infidelity, when no man quite believed what he professed or wrote, and every one doubted the sincerity of the professions of those around him, it was no small pleasure to listen to one who, however wrong he might be in his conclusions, at least believed himself to be sincere in what he said, and urged his doctrines with all the eloquence that sincerity inevitably gives to the teacher. It was something, too, to listen to a man who saw through the vapid conventionalities of the age, and dared to think and feel for himself; and, more than this, dared to utter boldly, and from the bottom of his heart, what he thought and felt.

In that age, so vague and unsatisfactory was all that related to mental science, that it was in vain that men tried to appeal to the first principles of metaphysics, or political science, to refute the sophisms of the rhapsodist. There was not, and unfortunately is not even now, one well-established fact or principle in the whole range of these sciences on which an argument can be firmly based; and without well-established premises the argument was, and must remain, a mere war of words, in which the more skilful mystifier is sure of, at least, a temporary victory.

The true secret, however, of the success of Rousseau's rhapsody lies in a principle of human nature from which no man, perhaps, was ever quite free; for men, almost instinctively, fly from the evils of their present state, or condition, to waste their time in unavailing regrets for a past they cannot recall, or in idle hopes for better things amidst the uncertainties of a future which they cannot foresee. The satiated man of the world, who before his prime has drunk the cup of life to the dregs, and exhausted every excitement, no doubt looks back on the days of his youth with unmitigated regret, their comparative innocence appearing to him times of purest happiness and bliss; the bullied and overtaken boy longs for the powers and privileges of manhood; the exhausted man sighs more fruitlessly for the immunities of boyhood. The truly wise and well-regulated mind knows that we cannot recall the past, and that the future, when it comes, will only be another present, and, acting on this knowledge, secures the greatest amount of enjoyment in the passing hour and of hope for the future.

In an age like that of Rousseau, when misguided science only led to doubt, and art proposed to itself no higher aim than pandering to sensual pleasure, and when unbridled license of thought and acts had brought corruption to the very core of society, it was little wonder that men listened with delight to a syren that promised to renew to them their youth, and that they heard with unfeigned, though with melancholy pleasure the rhapsodist descanting on the virtues and simplicity of the past. To the future they dared not look. They felt, like the exhausted *roué* of society, that they could never again enjoy what they had wasted; and they could not but instinctively feel that they were hurrying on to a future without hope, and contracting a debt that would one day become due: and how fearfully that reckoning has been exacted, the subsequent history of France too plainly tells. But it was because she neglected science, or misused it, and that she never knew what art really was, and degraded what little she possessed, that the retribution was so fearful. Had she cultivated science only for its truth, and art for its purifying influences, it must have been far otherwise with her.

As certainly as revolving years hurry the boy onward to manhood, so certainly does increasing population press a nation onward to a degree of civilisation without which large bodies of men cannot exist together. But neither men nor nations can stop their growth and stand still, however much they may wish it. A very thinly-populated country may support a nation of hunters in a state of tolerable equality, but a slight increase of

population forces some to become shepherds, some cultivators of the soil, and a further addition forces many to take to manufactures, as the soil will not support all ; and again, between these must spring up those who will exchange the commodities of one class for those of another, and perform the great task of capitalists in keeping society together. As population increases men must pack still more closely over one another—the world is not wide enough for a nation of equals, even if such were possible where no two men are either bodily or mentally alike. There must be the rich, and consequently in most cases the idle man, with his luxury and its concomitant evils ; and the poor, and, if idle, vicious man, to prey on his more wealthy neighbour. Still there exists in all societies an intermediate class, who, “fitted with an aim,” are forced either to bodily exertion to gain their daily bread, or to exert their mental faculties to maintain their position in society ; and in the healthful employment of these, they nourish those virtues which adorn the human race, and avoid those temptations to which the very rich and the very poor are exposed. We, as a nation, have reached that state of population and consequent civilisation which is open to those vices and those temptations so eloquently denounced by Rousseau. To avoid them, we cannot go back one step towards the past ; but we have the power of improving the present to an unlimited extent, and of cultivating every virtue which ever adorned humanity, and in doing this we may ensure a happy future ; but if we neglect the means at our disposal for doing this, it is only too true that our state may soon become one of unmitigated evil.

Even, therefore, if it were probable that any satisfactory conclusion could be arrived at by arguing the question, it would be difficult to find a more essentially idle one than the question, as to whether a state of savage simplicity or one of civilised refinement is, abstractedly, the best for mankind. It is easy to be eloquent on the vices of the one or the virtues of the other state ; one man may admire the patient endurance of bodily pain and fearlessness of death displayed by the savage, another the long-enduring search after truth of the philosopher and his fearlessness in uttering it ; one might prefer the open but bloody mode of redressing wrongs, or avenging injuries, practised by barbarian nations, to the slow process of law which performs that office in civilised communities : these arguments may amuse the idle, but they can bear no practical fruit to a community that has reached the state of civilisation we have attained. To the philosopher, however, the equality of reasoning on both sides may

induce him to look deeper for the solution, and he will probably find it in the fact that no state of society, from the merest barbarism to the highest civilisation, is without its advantages and disadvantages, its virtues and its vices ; and that, in fact, there is no natural advantage possessed by one over the other : in all, vice does and must exist—in all, virtue is attainable by those who seek it ; there is no state in which it is not in man's power to improve his condition : none in which a neglect of what is right may not render his position intolerable. And as with nations, so it is with individuals ; there is no station so low and humble that virtue and industry will not make the man placed in it as happy as it is given to man to be, none so high and fortunate that vice and indolence may not convert it into a hell upon earth. Health, and wealth, and power, are of no avail to an ill-regulated or vicious mind ; and poverty and misfortune cannot long oppress the well-trained and virtuous man. The rich, it is true, have the advantage of knowledge, and leisure, and power, but they are bought at the expense of a fearful increase of temptation to do wrong. The industrious classes are denied these advantages, but their path is straighter, and the temptations to deviate from it far fewer than with their much-envied superiors.

I know no doctrine that appears to me so self-evident as that of the perfect *natural* equality of all conditions of mankind—as far as the power of attaining happiness is concerned—from the most patriarchal simplicity to the most complex civilisation, and from the poorest hewer of wood and drawer of water to the wealthiest potentate on the face of the earth ; combined at the same time with the most unmistakable diversity of physical condition, and of power, both mental and bodily : or, in other words, that all men are equal in station and in power to enjoy, improve, or deteriorate their own condition ; while no two men are physically like one another, either mentally or bodily, or have the power of assimilating themselves to any other person in these respects.

Few will, perhaps, feel inclined to go the whole length of this assertion with me, nor is it at all essential to the argument that they should ; it is not an open question, or one in which we have any choice, and a full-grown man might quite as reasonably hope to return to the forms and feelings of boyhood, as a nation that has reached the density of population and degree of civilisation that we have reached to return to a state of barbarous freedom and equality. Men and nations may reach a second childhood, but only through the slow and degrading process of decay ; and this second

childishness is not like the first, and no one ever yet desired to attain to it. If this be so, it is useless to waste time in unavailing regrets for the past, or idle speculations as to whether one state of civilisation is better than another: that I look upon as quite out of our power; but man's will is free, and we may now either exert ourselves to improve the position in which we are placed, and extract from it all the good of which it is capable, or we may cross our arms in indolent despair, and sink—as we then most certainly must do—into all the evils which surround every condition of life in which either men or nations are or can be placed.

We are thus led inevitably to the real question, and the most important one that can occupy the minds of thinking men,—What are we to do to extract all the possible good out of our present condition? Each man will probably answer according to the bent of his own mind. The Priest will say, Build more churches, and extend ecclesiastical establishments; the Jurist, Reform your criminal and civil codes, and administer your laws better; the Physician would naturally turn his mind to the requisite sanitary regulations for increasing the health and improving the bodily condition of the masses; the Political Economist, to the means of accumulating and distributing wealth, and improving the intercourse and commerce of nations. All these are excellent measures in themselves, and so are ten thousand others, any one of which it would be wrong to neglect: but before all this I would answer—Cultivate the sciences and the arts; no purer faith,—no real and permanent good can be effected except from an improvement of knowledge; no higher or more elevated tone can be given on the all-important subjects of morals or religion, except by imparting a higher degree of refinement, and a better appreciation of the purely beautiful, to the public mind. This last is—or at least should be—the true mission of art; and were art so cultivated and based on knowledge, we should have higher aims and nobler purposes than we now have, and we might be struggling forward towards the Divinity instead of grovelling in error and uncertainty, as we are now doing.

Were the minds of the upper classes in this country thoroughly imbued with the truths of science and earnest in their pursuit, they would not require to waste in dissipation and frivolity that energy which might be so far better employed on higher objects; and were they to cultivate intellectual beauty, they would find in it a far higher and more lasting gratification than in those forms of sensual beauty in which alone they now indulge. Their wealth and luxury, instead of being the unmitigated

evil Rousseau so eloquently denounced, would enable them to approach as nearly to a state of Utopian perfection as it is possible for men to conceive ; their power so employed would be a blessing to themselves and all around them, as it would give them the means of elevating themselves above their fellow-men, and thus of setting an example which the humbler classes would not be long in following.

Still it must be confessed that a state of wealth and luxury is one of great temptation and danger, and has led, and may still lead, to the most fatal consequences ; but only because it is one where exertion is not necessary, and because persons placed in it are frequently deprived of an aim or worthy object of ambition which may supply that purpose and wholesome incitement to exertion that is forced on the humbler classes by their necessities. But the question that here arises is,—Can they not be provided with such an aim, and cannot their wealth and leisure be turned to as much advantage to the common weal and to themselves as is derived by the forced exertions of the labouring classes, whose toils not only serve the state, but keep their own minds and bodies in a state of healthful excitement ?

Our own belief is that this aim can easily be furnished to them, and that, consequently, the solution of the problem is in our own hands : whether we shall solve it practically or care to do so, is another question ; our power appears to me indubitable, and the mode in which it must be done, or at least commenced, appears to me to lie only in a better cultivation of the sciences and arts, properly understood and appreciated. They, I believe, could effect this most-to-be-desired reformation, and without one single evil consequence arising from the attempt.

A metaphysician can, of course, prove any thing he likes (metaphysically), and, by heaping together a number of unintelligible words in an incoherent manner sufficient to puzzle both himself and his readers, arrive at the conclusion he desires ; and if, like Rousseau, he will only by an eloquent sleight of hand interchange sufficiently often the words, luxury and learning, art and enervation, and forget to define what he means by vice or virtue, he may have it all his own way. No one yet, however—so far, at least, as I am aware—has shewn that knowledge of truth, which is science, or the pursuit of it, ever debased a man, or depraved his mind, or made him in any respect less virtuous ; or that the worship and elucidation of the beautiful, either in nature or in art, enervated a man's mind, or made him less humane on the one hand, or less brave on the other. Judging

à priori, these healthful exercises of the mind are exactly what should strengthen and invigorate it, remove superstitions or unfounded fears, and elevate a man not only above his fellow-men, but above all the natural evils he is beset with. If they will not, I do not know what will : and practically, so far as my knowledge of either history or biography goes, this has invariably been the case. I do not mean to deny that there have been depraved and wrongheaded men of science, or effeminate and vicious artists ; but even admitting the few cases that can be adduced, it still remains to be proven that it was their knowledge or their art that was the cause of this, and not rather the imperfection of the one or the other ; that their science was only empiricism or sophistry, and their art mere imitation or mere sensuality ; or that they were living in a society that had no sympathy with their pursuits, and that they were driven to despair and depravity by isolation and contempt.

Rome has been often quoted as an example opposed to these views. When, it is said, she had neither arts nor science, she was virtuous and great : when these came, with increased civilisation, she became a spectacle of vice and crime such as the world never saw. As I read history, the true inference is diametrically opposed to this. When she was poor, it is true she escaped those vices to which from her poverty she was not tempted ; but when she reached that state of civilisation which was inevitable, it was because she was not prepared for it, and had neither cultivated the sciences nor cared for them, and because she had no native arts, that she wasted her power and wealth in gross and brutal debauchery, and its consequent horrors. The arts that did exist in Rome were borrowed from the Greeks and mostly practised by Greeks, and only used as articles of luxury or to pander to sensuality ; and even poetry, after the age of Augustus, became merely the handmaid, or the reprobator, of her depravity : and it was because she had no higher aim than the attainment of material power and the enjoyment of sensual indulgence, that she became so fearful an example of all that is or can be bad among mankind.

On the other hand, the petty state of Athens, even when deprived of her liberty, and reduced to being only the nominal capital of a conquered province, was throughout all antiquity, and is now, an object of such unbounded admiration ; and this though neither her polity nor her morals were perfect, but merely because she had cultivated the sciences and arts. These saved her from the contempt her unfortunate position would otherwise have consigned her to ; and this ennobled her citizens and herself,

and made even her conquerors look on her with respect, and treat her as the intellectual mistress of the world, though no people were less capable of appreciating this kind of superiority than the Romans.

We are fast verging to a state of wealth and luxury almost equal to that of Rome before she fell under the dominion of her emperors ; and if we are to remain a mere money-making, power-accumulating people, undignified by any higher pursuit, our fate must be hers ; before long it may be too late to retract, and our doom be inevitable : for even now there is a mass of idle wealth, seeking and finding its only gratification in frivolity or sensuality ; and a still more fearful mass of want and misery festering at the base and preying on the vitals of society. Still the mass is yet healthy, and it is not too late to elect. The path of Athens is as open to us as that of Rome. We have only to choose, and, having chosen, to persevere in the path of our election, either to attain that eminence which ennobled Athens, or to sink into that abyss which destroyed Rome. But there is no time to be lost, and unless the right direction is now given to the public mind, the problem may be solved without us, and the luxury or corruption that exists among the highest and the lowest may extend through all the ranks of society.

As in Rome, our arts are not, or at least have not hitherto been, native, but borrowed from other nations and other times, and have, consequently, as yet no real root in the soil, and are too contemptible seriously to engage the attention of the best class of minds. Still I believe it is not too late to plant them, and, if properly nurtured, they may yet flourish and bear good fruit. Our sciences have hitherto been cultivated for far too material a purpose to be instrumental either in guiding us in our onward path, or in elevating our minds so as to overcome the difficulties we may encounter. But there is still time to bring them back ; to revive, or rather, I should say, to re-create, mental philosophy, for it scarcely can now be said to exist ; to free it from the visionary speculations which the spider-brains of the metaphysicians have substituted in its place, and give philosophy that truth and reality which shall make it intelligible to all, and give it that elevation and vitality which will render it applicable to the high purposes for which it was designed.

I have myself no doubt but all this can be done, and more ; but it would be idle to assert that it can be done easily or quickly : indeed, the more intimate our acquaintance becomes with the present state of the sciences and arts, the more difficult does it appear. Old men will not and

cannot re-educate themselves. Artists who have been brought up in a certain line of art, and found it pay, will not now forsake that for any new scheme, and will look with ill-will and suspicion on any new theory that may be proposed; and men of science will continue to cling to the mathematical and physical sciences as the only ones which are cultivated on intelligible grounds, or which lead to satisfactory conclusions; and it will be long before they can be brought to believe that the mental sciences can be elevated above the jargon that at present occupies their place. Still it is to be done, and victory is so noble, and defeat so disastrous, that all, however humble, should lend their aid to accomplish so desirable an end.

At the same time I cannot but think, that the nation at large is becoming aware that there is some such great problem to be solved, and that the time is come to set about it. There is on all hands a strong desire to see the lower classes better educated, whatever difference of opinion may exist as to the mode in which this should be effected; and schools of design and galleries of art are being every where established to enable artisans to understand and practise a higher style of art than has hitherto been within their reach. All this is right, and indeed essential, but it is not all, or indeed the most essential thing: what is most wanted is a better style of education for the upper classes. It is in them that the great danger to society exists, and from them that the example must come that will elevate the tone of society. It is in vain to hope that a poor man, who has his daily bread to earn by the sweat of his brow, can have either the leisure or the opportunity to improve the arts of his country. Long thought and elegant refinement are essential for the improvement of a fine art, and these can exist only among the upper classes: long, patient, steady, and expensive research can alone advance science; and these, too, are incompatible with the condition of the lower orders. But when the upper classes are so refined as to make art a necessity to them, have their taste so cultivated as to be able to appreciate what is right and what is wrong, and knowledge sufficient to direct and command, then will art advance; and they will soon find ten thousand hands ready and able to execute what they must conceive, but what the labourer now neither can nor dare attempt. At present we have not an upper class capable of conceiving or creating, and consequently no lower class trained merely to execute; but art rests half way on a class combining both attributes, and who practise it only for its money-value as a trade, thinking and executing themselves.

Science, too, has hitherto in this country been exercised almost exclusively for its money-value, though not so entirely as art. We have some scientific gentlemen, though few. But the mass of the work is done by persons who pursue it either to reap a money-profit by the discoveries they may make, or to gain an income from communicating the knowledge they may accumulate. A higher aim, and more means than these men can command, are requisite before much can be done.

To reform this, and obtain any beneficial results, it appears to me requisite to begin at the beginning, and provide a better class of education than is now available for the upper classes. At present, in England, whatever may be the capabilities or dispositions of a boy, he is taught Latin and Greek, with a little abstract mathematics, and little else; and it is contended, that this is not only quite sufficient, but the best mode of exercising his memory and improving his intellectual capabilities. It may be so; but, by a parity of reasoning, it could be proved that a treadmill is by far the best means of exercising the muscles of the legs, and a pair of dumb-bells those of the arms and chest. In their bodily education we encourage boys to run, to leap, to swim, to ride, to play at cricket or football—in short, a thousand various and congenial exercises, and the results are in every respect beneficial and satisfactory. Our public schoolboys grow up vigorous, active, and manly; but their minds are subjected to the distasteful and unvaried treadmill and dumb-bell system of the Greek and Latin grammar, which they hate while practising, for it is uncongenial, they know it to be useless, and they escape from it the moment they can, and forget it almost immediately afterwards.

Of a hundred boys that are sent to a public school, perhaps not ten, certainly not twenty, are capable, from the structure of their minds, of becoming classical philologists, or of finding in after-life a pursuit, or even a recreation, in the studies forced on them in their boyhood. There are perhaps ten or a dozen others, who might have their sympathies awakened, and their taste for the beautiful cultivated, were it presented to them in the form of painting; as many more might be attracted by sculpture or music. There are some incapable of appreciating beauty in any of its various forms, who would be as much elevated and as usefully instructed by mechanics and practical mathematics; and others, again, to whom the natural sciences are so congenial that the mind springs exultingly to their cultivation, and they find in the plumage of a bird, or the flower of a plant, that beauty which written poetry cannot convey to their minds. The great

fact is not suspected in our schools, that no two men are alike, no two minds fitted for exactly the same pursuit. With us all are taught only one thing, which to nine-tenths of those who are taught it is an utterly useless thing. That it is so, is the very first lesson a man acquires on leaving the university and entering society. If he attempt there to display his classical lore, which has been the sole object of the last twelve or fifteen years of his life, he is first stared at as a natural curiosity ; if he persevere, he is voted a pedant and a bore. There are few who have not tact enough to perceive this, and make haste to remedy the mistake. But what is the result ? so far as an object or intellectual pursuit goes, their mind is a *tabula rasa*. Our large towns, however, soon supply the void the universities have left. Eating and drinking, horses and dogs, women, society, gambling, and other such pursuits, are soon learnt, and soon engross a young and ardent mind, whose education, with all its defects, has, nevertheless, been quite sufficient to thoroughly awaken his energies, and the habits of whose previous life have given that keenness and energy that cannot rest in idleness, but must find gratification somewhere.

It has often been objected to the principle of educating the poor, that we are only making them clever devils, and giving them tools for their own and our destruction. With ten times more force might this be objected to our present system of educating the rich. We do all we can to force their intellects and their feelings ; and with every energy awakened, every nerve strung almost to bursting, we send them into a world full of temptation without a vestige of a pursuit or one fact to guide them.

The consequences are easily foreseen. One half of them plunge into dissipation, and waste the best years of their life in frivolity or debauchery ; they rush into any animal or sensual enjoyment that will consume their superfluous activity, and save them from the objectless vacuity of their minds.

In after-life, when such enjoyments have brought that satiety which is their invariable sequent, and exhausted nature bridles their worn-out passions, some of them turn at last to the sciences or arts for that occupation they cannot now find elsewhere. Science is, generally, too cold and hard for such effete natures ; few, indeed, have the courage to attempt to begin to learn one then : nor, perhaps, could art be learned, if true art existed. But the most exhausted and senile intellect is capable of com-

prehending and busying itself with that archæology which now stands for architecture, the connoisseurship which is supposed to be a knowledge of painting, or the dilettanteism which enables a man to fancy he understands sculpture. None of them were taught or cared for these things when they were young, and now that they take to them when old, it is impossible they could create or have any sympathy with creation. Still it is these men who, from their station and education, should be the guides and patrons of art; and so indeed they are, but cruel step-mothers they have proved. Art cannot reach their sympathies, or elevate them; and they have trampled on, and crushed to dust, the noblest gift of God to man.

This, however, is scarcely a fair description of the whole of the upper classes; for in this country at least, thanks to our rational system of bodily education, many of the upper classes find in manly sports that pursuit and occupation which is denied to their minds. They walk and ride, they hunt and shoot, and consequently eat and drink largely and sleep soundly. They are thus vigorous and social, their pursuits fully occupy their time and minds, and they get through life without ever finding out that they have not been educated, mentally at least. As far, however, as the sciences or arts are concerned, this class is as useless as the other. They may study the science of manures, or employ an architect to build them a hideous hall, or a painter to portray a prize-ox or a favourite bull-dog. But, estimable though they be, it is not to these men that we are to look to give a direction to the nation on matters of deep science or high art. Their influence may be, and is, beneficial in their own immediate circle, but we want something of a higher stamp to influence the masses, and fit society with higher aims than it now possesses.

To neither of these classes, as at present constituted, can we look for the advancement of science and the improvement of art; and if they are always to remain as they are, I fear the case is hopeless. If they are really incapable of better things, I know not where to look for assistance, nor how the desired reform is to be effected. But my own steadfast belief is, that they are capable of far better things, and of the highest scientific and artistic development, and that the true cause of the present difficulty and depression rests wholly in the thoroughly vicious system of education pursued at our universities and public schools, and indeed in all schools under their influence. If this can be reformed, we shall not be long before we see a better and healthier state of things.

Had this question been agitated a few years ago, our pseudo-Greeks and Romans would have answered, as they have often done triumphantly, that there was something in the idiosyncrasy of the Greeks, something in the form of their skulls or in their climate, something in their religion (*proh pudor!*) and institutions, that enabled them to surpass their contemporaries in poetry and art, and render it hopeless in any succeeding races to attempt to rival them, or do more than limp after them by the cold and servile process of imitation; and the same arguments are frequently urged when it is attempted to inquire why we cannot surpass the Italians of the fifteenth or sixteenth centuries in painting. Within the last few years, however, we have discovered that even in this island there is no city that does not (or did not) possess a cathedral, or town or village without its church, and that these cathedrals and churches were built by our ancestors while in a state of semi-barbarism in this much-maligned climate; and, moreover, that they are in most respects equal, in some superior, to similar buildings of the same age in Italy and on the Continent, not only in their architecture, but also in the sculpture and paintings that adorn them. To compare these latter with the productions of the best days of Grecian art would, of course, be absurd; but I have no hesitation in asserting that they are quite equal—I believe superior—to any thing produced by the Greeks when at a similar stage of civilisation. We only now, in the nineteenth century, are as civilised as the Greeks were in the time of Phidias, and it is not fair to expect that what we can do only now, our ancestors should have done three or four centuries ago. But in architecture, even then, with all their disadvantages, our forefathers surpassed the Greeks, not only in the constructive skill and magnitude of their edifices, but in their knowledge of effect, and the general grandeur of conception and appropriateness of detail displayed in every part. Had we gone on till now cultivating these arts as our forefathers did, and improving them steadily, long before this time the arts of Greece would have been too contemptible to attract attention; for it would have been just as easy for us to have surpassed Greece in the fine arts as to distance her, as we have done, in the useful ones. As it is, we forsook our native fine arts to cultivate dead and exotic ones; we voluntarily put the yoke on our necks, and have sunk into a race of servile imitators; and, like all slaves, we have ourselves become objects of contempt. Yet what our forefathers did in this climate, we at least can do again. So far, it is needless to object to the configuration of our skulls or the effect of our climate. We can at least re-create as high and as vigorous

a native art as then existed, which will be something, and more than we can do now. But we can do far more, and far better things: we can surpass the works of the middle ages as far as the works of the age of Pericles surpassed the archaic productions of that of Cypselus, and create an art that will be worthy of our nation, and worthy of engaging and employing the highest class of intellects that exists among us.

We *can* do this, but *shall* we? This is the real question, but one far more difficult to answer than the other. There are few things regarding which I have less doubt than the capabilities of the upper classes to push both science and art far beyond any point they have ever reached anywhere. But when I look around and see the ignorance that prevails on the subject on the one hand, and the still more hopeless apathy that exists on the other, it is not easy to see whence the impulse is to come, or when the dawn is likely to appear. Can we hope to rouse the Ephesian sleepers of our universities from their slumber of ages, and convince them that the sixteenth century has passed away and that we are really living in the nineteenth? Will they ever be taught to believe that what was a respectable education in the days of Wykeham, or Waynflete, or Wolsey, is only a very contemptible one after the invention of the printing-press and steam-engine? After new worlds have been discovered, and new forms given to every science, and indeed to almost every relation of life, will they ever feel ashamed of being centuries behind the world, and attempt not only to reach but again to lead it? It appears almost like madness to hope, and yet it is treason to despair. The prize is so noble, the good to be done so incalculably great, that it would be cowardice of the darkest hue in any one who has a glimmering of the right not to strain every nerve, and use every exertion to make his voice, however feeble, heard; and to try by every means to point out the path by which society may attain a higher eminence, and be fitted with nobler aims than now occupy its attention.

To do all this is no easy or trivial task; on the contrary, perhaps the most difficult one that can be proposed to human intellect: but it is at the same time the greatest and noblest. To this these volumes are dedicated, not that I have the smallest hope that I can accomplish it: it is not a task for one man, nor perhaps even for one age; but if I can point out a small path, that leads even indirectly towards the great object, by which two or three ardent explorers may follow, I have done much; and if I succeed in this, I shall not despair of the broad road

being made by which masses may pass on, and the country at last opened up to the multitude^s. I cannot build the house alone, but I would willingly bring my brick to the great edifice of modern civilisation. Let every man do the same, with the same sincerity and earnestness of purpose, and I shall not despair of seeing the great building rise, the greatest glory and the most lasting monument of our age and country.

PART II.

SECTION I.

THERE are two great departments into which the search after truth in the domain of science must always necessarily be divided, and which, though distinct in themselves, are both absolutely requisite to make up the scheme of human knowledge in its integrity; though at the same time the elaboration of the one must always, from its nature, precede that of the other.

The first may be compared to the task of the traveller who sets out personally to explore unknown countries, and records in his journal his own experience. Others succeed him, and add their observations to the general stock; one observes only distances and the more striking features of the road; another describes the manners and customs of the inhabitants; a third remarks on their system of polity or arts; a fourth studies the natural history of the country, or describes the rocks and trees, or the live animals that inhabit it; till at last there is found to exist in their separate journals all the required information regarding the country and its productions. Still all this information only exists, in an unclassified and ill-digested form, in fifty different works, which few have the courage or leisure to master. Much of it is necessarily repeated over and over again, and no general view of the whole subject can be obtained except by those who can and will wade through the whole, and abstract for themselves the essence which alone is valuable. Hence the necessity of the second department, which may be compared to that of the geographer or statistician, who remains at home, and from the various narratives of all the travellers first protracts all their routes on one sheet, and, correcting the one by the other, constructs a general map of the country; and comparing and weighing the various estimates and descriptions of all, compiles into one general *résumé* a complete statistical, political, and physical geography of the country: thus condensing into one short volume,

which any one can master, the essence of all that was contained scattered through the ponderous tomes of the explorers themselves; omitting all that is obsolete or proved to be inaccurate; correcting all that the narrow views of an individual may have stated wrongly, and by condensation enabling all, with far less labour, to grasp more extended general views than would be otherwise attainable.

When the light of true science began to dawn in the sixteenth century, the first department was that chosen by Galileo. He boldly ventured to explore the hitherto unknown lands of science, and to observe with his own eyes the phenomena that were there presented; and with a sagacity and courage seldom equalled he did observe correctly, and recorded a mass of experiences which laid the foundation of the present physical sciences.

The second department was that chosen by a man of equal ability, our own Lord Bacon, who boldly essayed to construct a general map of human knowledge, and to compile a general survey of what had been explored, and point out to future adventurers what still remained to be done, and in what direction; and by what means, they who should in future undertake the task had the best chance of arriving by the easiest and shortest road at their destination.

In the department of Galileo we have had, since his time, thousands of earnest and active explorers, and every branch of true science can bear witness to the effect of their labours, and the consequent mass of knowledge that their industry and perseverance have accumulated, not only in mechanics and physical astronomy, but in chemistry and geology—sciences created since his time; and in all the departments of natural history, some of which scarcely existed till long after his death. The intellect of the world has followed in this path, but the other, and perhaps the nobler department, that Bacon chose for himself, has been comparatively neglected, and the consequence is, that though Galileo's knowledge is childishness compared with the giant science of the present day, Bacon's work is unsurpassed, and has had no nobler offspring. In the one department, progress has been rapid and uninterrupted; in the other, we remain where Bacon left us.

True it is that Bacon failed utterly in his attempt to classify human knowledge;* and generally it is supposed he failed because science was

* *De Augmento Scientiarum*, lib. ii.

not sufficiently advanced to enable any one at that time to accomplish the task, and many despair of it even now. The true cause, however, I feel convinced, lies deeper. His great merit was his contempt for the philosophy of the Greeks. In physical science he clearly saw how impotent they were, and proclaimed it, and with that force of reasoning which emancipated that science from its thralldom. But it would be asking more of him than even his giant intellect was equal to, to expect that, in an age so completely under the dominion of the Aristotelian philosophy, he could on all points wholly free himself from its influence, and rise entirely above all the prejudices of his contemporaries, and stand alone and aloof from the rest of mankind. He did much, and we must not wonder that he did not do all; the more so, as though now two centuries have passed since his day, during which the inductive methods have become familiar to us as every-day things, and we know that whenever success has been achieved in science it has been through their instrumentality, and through this alone; still, even to this hour, when men turn to the mental sciences—the most important of all—they forsake at once these familiar and useful tools, and begin to talk in the jargon of the Grecian metaphysicians, quoting Aristotle and Plato as authorities, as if there were two kinds of truth, and we could reach it by two opposite paths. The great fact remains now as in Bacon's days the same, that in whatever science or art we have entirely emancipated ourselves from the influence of the Greeks, in that we have achieved success; wherever we have remained under their influence, we have signally failed.

In the last century, D'Alembert* and the French Encyclopædists attempted to complete the classifications of Bacon. But no polishing or improving can ever make a pyramid placed on its apex a stable building; their additions only served to render more apparent the defects which the simplicity of the original had prevented many from observing.

Since that time, many authors, as Bentham† in this country, and Ampère‡ in France, have attempted artificial classifications, despairing of natural ones; and were it worth while to commit their hard names to memory, they might be useful as a *memoria technica*: but nature will not be circumscribed by squares and circles, and no new fact, and no

* *Mélanges*, tom. i. p. 239. Amsterdam, 1767.

† *Chrestomathia*; a work on the subject. Lond. 1816.

‡ *Essai sur la Philosophie des Sciences*, Paris, 1838–43.

general views, can ever be obtained by such a process. The system of M. Daunou* is better, but it seems to have been intended more for the classification of a library than of knowledge; and was compiled for the special purpose of degrading Theology from the first position it had always held in previous classifications, to that subservient place his countrymen think it proper that science should occupy.

None of these systems have succeeded; indeed, I believe I am correct in affirming that there is not any system in the hands of the public in which they put any faith, or which has been or can be applied to any useful purpose. If any one had obtained a great name or extensive credit, it might be worth while to examine its pretensions, and to try either to improve it, or to shew wherein its fallacy consisted; but there are, so far as I know, none that have received the assent of even a small class of followers, and it would therefore appear to be a waste both of time and words either to attempt to enumerate or refute them.

Long anterior to any of these systems—in the depths of the middle ages—the Monkish Encyclopædists hit on a classification, which, with a little industry rightly applied, might long before this have been made perfect. The best and completest specimen of it that I know of, is found in the *Speculum Majus* of Vincent de Beauvais,† the friend and preceptor of Louis the Saint. In the true theological spirit of that age, the system was founded on the Bible; and taking the first chapter of Genesis as their guide, they classified human knowledge according to the succession in which things are represented to have been created in the six days which are there allotted to the task. And as Moses in describing them had followed the reasonable and apparent importance of the objects, he very nearly laid the ground of a perfect system; the one great difficulty being the intervention of the creation of the sun and moon between that of the mineral and vegetable kingdoms and that of the animals.

The spirit of that age would, probably, scarcely have admitted of the rectification of this anomaly in classification; but otherwise the system is so nearly a correct natural one, that had the philosophers of the period only persevered in improving it, correcting its errors, and avoiding the unnecessary repetitions into which it sometimes falls, before two centuries had passed over it must have become so perfect that every additional advance in science would have served only to consolidate and complete

* See the Introduction to his Catalogue. | gentinæ, 1473. See also Daunou, Hist. Litt.

† *Speculum Quadruplex*, 7 vols. fol. Ar- | de la France, vol. xviii.

it; and long before this the classification of human knowledge would have been as perfect as that of any individual science now is.

Long, however, before that most-desired consummation could be arrived at, the philosophy as well as the arts of the middle ages sank into contempt before the reappearing star of Classic Antiquity, and instead of the vigorous and manly independence that enabled our half-savage ancestors to accomplish such wonders in art and in science,* we had sunk into, and have remained servile copiers of its arts, and still more servile repeaters of its metaphysical jargon, on which our system of philosophy, and our classifications, have hitherto been founded. Still, if I mistake not, a better state of things is now at hand, and instead of vainly attempting to fight the metaphysicians with their own airy weapons, men are content to pass them by, and fill their place in the ranks of science with something more substantial and intelligible. I cannot but believe that before long the speculations of metaphysicians will be classed with fairy tales, or the myths of the early dawn of civilisation; and when even, though nothing else may be taught in our schools and universities, the dreamy speculations of the Greeks will disappear like morning mists before the dawning intelligence of the nineteenth century.

To effect this, however, there is nothing more imperatively demanded, by the scientific spirit of the day, than good natural classifications of human knowledge. The task has now been performed, more or less perfectly, for all the individual sciences, and the greatest intellects think no task nobler than that of either inventing new classifications or improving the old ones. None of them, it is true, are perfect, but they are progressing towards it; and at all events we see how the task is to be accomplished, and hope to see it completed. Besides this, we can scarcely open any work on any particular science without finding in the introduction some sort of attempt to assign it its place in the noble fraternity,—an attempt, it is true, at a

* The *Speculum Majus* is by no means a perfect work it must be confessed, and a man of science nowadays would consider his time utterly wasted in trying to master its heterogeneous contents; and correctly so: but of one thing I feel quite certain, that the science contained in it is quite as perfect and as worthy of our study and imitation as the art contained in the contemporary cathedrals of the thirteenth century. If we are to bow down our intellects to

admire and copy the one, we ought in consistency to do the same by the other; for the one contains quite as much intellect and beauty, and is quite as much fitted to the purposes of modern society, as its contemporary, and it is absurd to reject the one while we expend such lavish admiration on the other. For my part I can study both with intense pleasure, as utterances of that age, but am equally ashamed of both when attempted to be revived in the present day.

classification, but, in nine cases out of ten, where every thing is made to bow to the science to be treated of in the work ; which is the one pursuit of its author, and in his eyes the only one worthy of engaging the serious attention of mankind.

Still there are, it must be confessed, higher attempts than these. Professor Whewell* has published a classification of all the inductive sciences, which is bold and original ; but he would, indeed, be a great man, who, living in the atmosphere of our universities, could rise above the mists of Hellenism which render this attempt abortive, as they have done many others. That of Auguste Comte,† in his introduction to the positive science, is based on sounder principles, and is the best I know ; but it merely embraces one great department of human knowledge, and does not either point out the position of the others, or fix its relation to them. Till the whole is grasped, proof or disproof is impossible, and the benefits to be derived from the attempt, small and one-sided.

A bolder flight than any of these was essayed by Coleridge, who undertook to construct a classification on which the *Encyclopædia Metropolitana* was to be arranged, forming a classified digest of all human knowledge. What the leading idea of this attempt was I never could discover, nor is it worth while to inquire here. It has had no followers, and, like its predecessors, must be content to pass into oblivion.

And shall I be bold enough to attempt what all those great men have failed to accomplish ? I cannot help thinking I see the means by which this is to be accomplished, though at the same time I am perfectly aware of my inability to carry it out. But if I can point out to others, more capable than myself, the path they ought to pursue, I have done as much good as if I myself had explored the track I now resign to them. If in after-life I should ever acquire the requisite leisure, there is nothing I should more delight in than devoting myself to it ; but even if I could now, this is not the place to do it : all I can attempt here is to sketch out the general plan, so as to separate the domain of art from that of science ; to point out their affinities and differences, so as to arrive at a correct definition of the former, with which alone this work is concerned, and thus be enabled to place its principles on a surer and more intelligible foundation than they occupy at present. To continue the simile with which I began this chapter, I am now going to sketch a map of the world

* *Philosophy of Inductive Sciences*, vol. ii. p. 281, *et passim*. | † *Philosophie Positive*, vol. i. Introduction.

(on Mercator's projection), so as to be enabled to point out correctly the position of the kingdom of art relatively to those that surround it on the north and south, the east and the west, and then going to construct a more detailed map of that country, with which I am far more familiar than I can pretend to be with those that surround it. Let others follow and correct my latitudes and longitudes, my coast lines, and the course of the rivers and mountains as I have laid them down. Our atlases were not constructed in a lifetime, nor by one man, but every man may add something to them, and by such continued improvements only can they approach perfection.

SECTION II.

GENERAL PRINCIPLES OF CLASSIFICATION.

IN every natural classification of human knowledge, the first step must be the division into the two great natural classes of the Sciences and of the Arts.* Meaning, by the former, *a knowledge of all that nature does, without man's intervention*; by the latter, *a knowledge of all those modifications that man works on nature's productions*.

The great mistake of all previous systematisers has been the classifying knowledge according to some metaphysical idea of how it is perceived or learned by man. Now, to my mind, the fundamental idea of a science is its total independence of man, either directly or indirectly. Take, for instance, Botany; suppose man had never existed, or were to-morrow blotted from the face of creation—would not the forests remain, “and the small flower lay its fairy gem beneath the shadow of the giant tree?” Would not every natural production of the vegetable kingdom, and every phenomenon, remain identically the same, whether man observed them or not? All that man can do is to

* In early life my mercantile pursuits kept me too close to the desk to have time for society, and having no taste for the ordinary amusements of my fellow-labourers, I sought my only distraction in reading. Like most young men, the science that charmed me most was Metaphysics; but I read also a good deal of Chemistry and Geology; tried hard to understand Crystallography; and puzzled my head with problems of Mechanics and Astronomy: in short, I bought any book on science my limited means would allow, and more with reference to the price than the contents; and, as was to be expected, soon read my head into a chaos, from which I in vain attempted to escape. I struggled long and hard to classify the ill-digested mass of incoherent facts with which my brain was filled, but for a long time in vain; till this division into sciences

and arts broke upon me and all became clear. It came upon me like a flash of lightning. From that hour I never had any difficulty, however various my reading might be. Every new fact found at once its appropriate pigeon-hole in my brain—nothing came amiss to me; and I am convinced, that if I have two ideas more original or more worth recording than those of my neighbour, I owe it to the happy inspiration of that hour.

This idea once broached, I was not long in constructing tables to represent it, and these were substantially the same as those now offered. As my knowledge increased, I continued to improve them of course, but I have never seen cause to doubt the correctness of the principle or of the base on which they were originally constructed.

observe, and try to understand, but he cannot alter one jot or tittle; not only the facts remain totally beyond his control, but the relation of one fact or phenomenon to another. We have as much to do with them as the school-boy who learns to construe Homer has to do with the construction or composition of that poem. It is true, he classes it as a school-book, precisely on the principle that we class Botany among the sciences of observation; but to understand and appreciate the poem, a man must take a higher view of its relations and purposes than to suppose it is meant merely as a school-book. And so of Botany; it is true we learn it by observation and classification, but it was not to exercise our ingenuity that trees and plants were put upon the earth, but for a higher and nobler purpose. It is true, at the same time, that we can superinduce changes in the natural appearance of plants, increase their size, change the appearance of their blossoms, and increase the size of their roots, stems, or flowers, to a very considerable extent. All this, however, belongs to the province of the arts,—to one, for instance, of the arts of agriculture, horticulture, or floriculture. On all sciences are based arts; but the observation of the natural productions, and the knowledge of the means by which man may modify them to suit his own purposes, appear to me so perfectly distinct, that I cannot see how any confusion can ever arise from using this as a basis of classification.

In the same manner we acquire a knowledge of the facts of Astronomy by observing the motions of the heavenly bodies, and calculating their places by the aid of our mathematics; but neither our instruments nor our analysis have the minutest possible effects on either the distances or motions of the stars: they rolled through space before man was created, and continue to do so now, totally regardless of the gazing of all the astronomers in Europe, and equally careless how many navigators are daily surveying their positions in different parts of the globe. Chemistry, on the other hand, is a science of experiment; viz. this is the tool by which we open its arcana, but there is not one phenomenon that did not exist ages before man observed it, nor one experiment that nature did not perform myriads of times before man cared to repeat it. Our vanity is no doubt flattered by the idea that all this is our doing, but science must be cultivated with a higher aim than to satisfy the cravings of human conceit, and the knowledge of truth is and always must be its only aim. The arts are man's works, but science is only a knowledge and appreciation of nature's. To have learnt so much of them, and to have

done so much ourselves, is no small triumph when rightly understood, without appropriating what does not, and cannot, belong to us.

The object of this great division will be more apparent in the sequel. In the meanwhile, to mark it I have been obliged to invent the word "Anthropics," to express the science of art, or the knowledge of what man does, in contradistinction to Physics; which, not to invent more terms than are absolutely necessary, I use in a more extended sense than that in which it is usually employed, to express a knowledge of all that nature does, irrespective of man and his works.

This great division once grasped, it is not difficult to know of what Physics consist, nor to arrange the various branches of physical science.

Astronomy comes first, as including not only this world, but all worlds of which we have any knowledge, and because we have not—perhaps cannot possibly have—any knowledge of any physical object beyond the remotest star; while all the rest of our much-boasted knowledge is confined to the observation of what passes on the surface of this little globe of ours, which cannot even rank as a star, but only as a third-rate satellite of one.

Once on the surface of our little planet, it is easy to group all objects into three (perhaps four) great groups,—minerals, vegetables, and animals, whose properties and relations are all that it remains for us to observe. Nor can there be much difficulty in assigning to each the place it ought to take in our classification.

Mineralogy must come first, not only because minerals must have existed before other bodies, but because it is the most extensive, and the basis of the others; they are made of mineral particles, are supported and nourished, directly or indirectly, by minerals, and neither could exist without it. I think, therefore, one is justified in saying that the mineral kingdom precedes and includes the other two, and it would consequently be most unphilosophical to classify the latter before the former.

The same reasons apply to the position of the vegetable kingdom before the animal, as the latter could not exist without the former, by which it is supported and nourished, and, both from its greater variety and extent, may be said to include it.

The great divisions being thus arranged, the subordinate sciences easily fall into their places, as will be shewn hereafter; but this classification does not include two great branches of human knowledge, mathematics and pure mechanics, which must precede even astronomy, and for this

reason—that they are, as I have ventured to call them, universal. Thus, the proposition that 2 and 2 make 4 is true in this globe, true in the sun, and at the remotest fixed star, and as equally so in any conceivable star or world that we know of, or can conceive; wherever units exist, and we cannot conceive any place where they do not, or at least may not, there all the phenomena of arithmetic must exist, and be as true as they are here. In the same way, wherever lines, or surfaces, or solids exist, there must, or may, all the facts of geometry exist; and where they do, the propositions of geometry are just as true as they are at the surface of our globe.

In like manner, if it be true that reaction is equal to action, or that a body acted upon by two forces takes a direction compounded of the two, or any other similar proposition, wherever forces or bodies exist, these things are equally true, in considering them we never think of particular, but of a general formula, applicable to all conceivable cases; while, in speaking of physical phenomena, we always refer to particular, individual objects.

These two—the Universal, and Physical sciences—appear to me to include all that usually bear that name, and if we add to them that science which I have named Anthropics, we have three great divisions under which, I believe, it will be found easy to group all human knowledge in a perfectly natural classification. There still, however, remains one, regarding whose place in every possible classification there can, I think, be no doubt, and that is the science of Theology, which from its very nature not only includes, but must necessarily precede all other sciences whatever.

The three great divisions therefore into which I propose to divide all human knowledge are—

- I. Universal Science,
- II. Physical Science,
- III. Anthropics,

which I believe will be found sufficiently distinct and comprehensive for every purpose, though their tendency and importance can only be understood from the sequel.

SECTION III.

UNIVERSAL SCIENCE.

TABLE A.

THEOLOGY SOMATOLOGY . .	Space	Numbers	{ Arithmetic Algebra, &c.	
		Form . .	{ Geometry Analysis, &c.	
	Time	Rest . . .	Mechanics	{ Statics Dynamics
			Hydraulics	{ Hydrostatics Hydrodynamics
		Motion .	Pneumatics	?
			Etherics	?
			Biotics	?

THEOLOGY.

To assign to this science its place, it is only requisite to assume the existence of a Deity ; that granted, it follows as an inevitable corollary, in the first place, that such Deity must be infinite in space: thus comprehending not only our globe, or our solar system, but all the fixed stars which our most perfect instruments enable us to detect, apparently on the verge of space. But there are worlds on worlds beyond these ; and beyond all this must extend the presence and the power of God.

In the second place, it is impossible to conceive a God without the attribute of eternity, as existing before all worlds, and as continuing to an indefinite future, even if our or other systems should be again dissolved into their atomic constituents, and absorbed in space. If there be a God, He is the creator and the ruler of the universe, before and after every thing, within and around all. As such, the knowledge we have of Him and

His attributes, which makes up the science of Theology, necessarily, and of course, includes as it precedes all other science.

I have assumed, without attempting—here, at least—to prove, the existence of a Deity, and I do this because, as an individual, I cannot form a chain of reasoning which would lead me, for one moment, to doubt what appears so self-evident; and because I cannot believe that any sane man, who disinterestedly gives himself up to the examination of the question, can long be in doubt regarding it. I am perfectly aware that many have doubted, and many now doubt the fact, and in all sincerity, and I can perfectly understand that they should doubt the existence of such a God as is often presented for their belief. I disbelieve the existence of Jupiter, or Juno, or any of the Greek or Roman deities, and can disprove their existence as such. I believe I can disprove also, that Buddha is the true God, or Siva, or Vishnu; so, too, if I am asked to believe in God as represented by the old Jewish writers, or by the priests of the middle ages, I must doubt, and this is all the French in the last century did. Their priesthood insisted on their believing in saints, miracles, and a God with the passions and feelings of a man, and acting as such; their intellect revolted at such absurdities, and they rejected it: unfortunately, they rejected the truth with the falsehood. But I have never yet seen one argument that met the question; they all strove to disprove the existence of the priests' God—and it is, alas! but too easy to do this—but they never approach the higher and the only question of God as God, which all our modern science toils in vain to comprehend,—which we feel is everywhere, and yet cannot tell what it is—which, without our consent, made us what we are, and what we can neither make nor unmake—a power which we cannot control, but which thoroughly controls us; assigns to every thought and act its appropriate reward and punishment, from which there is no escape and no appeal. To escape from the acknowledgment of a Being so superior to their own conceit, men have tried to call this Nature, Chance, Fortune, or heaven knows what; but that there is some power, some first cause, all admit. That power or cause I call God; and I see it every where, infinitely beyond where my weak and finite intellect can ever dare to follow it. Struggle as men may against such a belief, no man yet has dared to form a hypothesis which could account for the absence of such a cause, nor do I think any man ever fancies he clearly sees how this could be done. I think it impossible, but it is the first requisite of infidelity.

Much outcry has been of late years raised against science, as if the

increase of our knowledge tended to disseminate unbelief throughout the land. It is, indeed, quite true, that if the priesthood insist on maintaining theology as it was in the sixteenth century, and insist that all the absurdities which long ages of darkness had engrafted on true religion should now be accepted as the true rule of faith, it must follow that every intellectual and educated man must be either a hypocrite or an infidel ; for every advance in knowledge we have made has tended to disprove, and, indeed, succeeded in disproving, these gratuitous assumptions. But with a pure and lofty conception of God and His attributes, every increase of knowledge can only tend to elevate us nearer to the Deity, to purify our conception of Him, and to increase our wonder at the immensity of His power, and our admiration of the beauty of His attributes ; indeed, I do not know of a better definition of Science than that it is a ladder—of infinite length, it is true—by which we may ascend towards a knowledge of the Divinity. No man should pretend to say he understands what God means, even as he is bound to understand it, till he has mastered all the science that human intellect has yet accomplished ; and when he has done this, has he approached or comprehended the Deity ? Let us suppose a man to know every mineral, plant, and animal on the face of the globe, to know all their properties and functions, to know them all ten thousand times better than any man now knows one ; and let his knowledge be equally perfect with regard to all the planets, and even with regard to all the stars ; has that man reached God, or does he understand Him ? Has he even approached nearer to Him than we are ? Perhaps he has, but it can only be in some such ratio as that by adding 2 to 3 to make 5 he may boast of having approached nearer to infinity. In nothing is man's conceit more painfully apparent than in his dread lest he should know too much, and thus learn to despise the Deity ; his fear lest the very limited space and time he can grasp should equal or surpass infinity or eternity ; or that the small modicum of knowledge which from his formation he can ever hope to attain, should exceed Omniscience : the idea is too puerile to be even fairly ludicrous. But at the same time all men may approach nearer the Deity, and to do this is the noblest aim man can ever propose to himself ; but he can only do it by increased knowledge of God's works, and increased appreciation of their beauty ; and if any man can by a life of purity and study attain a more extended or more perfect idea of the Divinity than his fellow-men, he has reached the highest object of emulation which it is given to man to look forward to. To assist in accomplishing this is the true

object of science and the true mission of art, and it is only when so employed as the handmaidens of Theology that they can fulfil their mission on earth, or tend to renovate the rottenness of society; but when so employed in enlarging and perfecting our conceptions of the Deity, they may furnish society with that aim which it now wants, and save it for its higher destiny before it is too late.

SOMATOLOGY.

From God we must at once pass to what must always be to man's finite intellect, the immeasurable gulf that separates the knowledge of the Deity from that of matter, to which and to whose properties our attention must in future be confined, as to these the whole of the remainder of our science is necessarily limited.

If we had any distinct abstract notions regarding matter, this is evidently the place they ought to occupy in our classification. But I need scarcely say that none such at present exist; and this is one of the great gaps that remain to be supplied by future investigations. Hitherto it has been handed over to the tender mercies of the metaphysicians, who have, as usual, supplied the place of true science by a series of *non sequiturs*, borrowed by a loose analogy from other branches of knowledge, without adding or recording one fact that bears directly on the question.

To them I must leave the dispute as to whether atoms are or are not infinitely divisible. If they are not so, we may start confidently from the definite basis of finite atoms; if they are so, it will be necessary to assume that these infinite atoms combine so as, in a certain state, to compose finite particles. Thus the first stage in the one becomes the second stage of the other theory, from which our reasoning must commence, till at least our knowledge has reached that point which it has not yet done; and, till we attain this point, it is evidently of no use attempting to go beyond it.

At the same time it is generally admitted, that what are sometimes called chemical atoms are not the finite atoms of the universe, and that we must go considerably beyond them before arriving at any general notions on the subject. But I believe all the observed phenomena might be represented by some such hypothetical assumption, as that all space is filled with definite atoms in a neutral state, and, consequently, inappreciable by us, either directly or indirectly; but that these, at the same time,

may exist in two states, which, for want of better terms, may be called negative and positive states, or male and female (to borrow a somewhat distant analogy). These may combine with one another—not like with like, but with their opposites, in certain definite proportions. That these combined atoms or particles, again combined, according to the same law form chemical atoms; and these last combined in certain proportions, which we know, form the sensible matter of this globe. I cannot help thinking there would be considerable advantage in representing our chemical philosophy according to this simple theory; and I know it can be done. But I only state it here to represent the science that should take the place of the void which now exists in our sciences, but which, of course, I cannot here attempt to elaborate.

Be this as it may, it seems to me requisite to assume the old Newtonian postulate of the impenetrability of matter; or, in other words, that no two atoms or particles of matter can exist in the same place at the same time, which is the only assumption requisite for understanding all the phenomena of universal science.

Infinitely divisible matter may, of course, do things infinitely beyond our comprehension; and if that theory is contended for, the proposition cannot, perhaps, be proved; nor is it requisite for our reasoning that it should: all that it is necessary for us to know is, that atoms or particles in a certain state of aggregation do not, and, practically, cannot, exist in the same space at the same time; or, in other words, that the world is not compressed, or compressible, into one infinitely small atom. Whether this is possible or not, I must leave to others to argue; it is sufficient for us to know that this is not the case, to enable us to understand the next class of phenomena, or those of

ARITHMETIC,

which are based on the proposition that wherever two or more atoms, or particles or bodies, exist together, there all the phenomena of arithmetic may exist, and, when their number is sufficient, does exist, either in a dormant or active state.

. Thus, suppose a hundred distinct particles to exist anywhere, it is quite evident that they may divide themselves, or be divided, into two parcels of fifty each, or ten of ten each, or any even or uneven number; that these added, or if even multiplied together, will make up the original sum; or one portion may be abstracted or added again; or, in short, that all

the simple rules of arithmetic may be performed with them ; and, more, that all these simple rules were performed by nature long before man existed, and are performed now daily before our eyes, not only as simple rules, but with a complexity that we cannot yet comprehend, and probably never shall.

To take a simple example : suppose a gust of wind blows ten leaves of a tree into a corner, another blows twenty more, a third sixteen, a fourth fifty, and so on ; no one doubts that if he count the leaves in that corner he shall find the sum total equal to the sum of the fractional parts thus enumerated : the same wind may subtract a certain portion, add it again, divide them in a dozen even or uneven heaps, and add or multiply them altogether again.

Or, taking a more complex one : a river flowing to the sea receives additions from rains or from tributaries ; portions are abstracted by evaporation, by absorption, or by other means ; so that no arithmetic can calculate what number of particles will reach the ocean : but the result in nature's arithmetic is quite as simple as that 2 plus 3 minus 1 make 4.

With his usual vanity, man fancies he has invented arithmetic ; but the fact is, he has only yet learned from observation, a very few of the simplest of nature's laws in this science, and that there are performing around him at this moment ten thousand problems so intricate that he will probably never be able to comprehend them, but which are as certain, and to nature as simple, as that 2 and 2 make 4.

All that man seems to have done for this science is to invent a nomenclature and a notation, which will enable him to represent, with sufficient correctness for his purposes, those phenomena which he has observed, or those extensions of the laws which he has ascertained from observation. But this has been with mankind a slow and painful process. The first step appearing to be the invention of a plural ; the next, inventing names to represent groups of 2, 3, or more : but so slow does this process appear, that some savages are said not yet to have advanced beyond 6.* But even supposing an individual in this state, if he go out in the morning to hunt with 6 arrows and shoot away 2, he will find on his return home that there remain only 4 ; or if he lay them on the floor in 3 equal groups, he will find out on collecting them that thrice 2 are equal to 6, either by division or multiplication : and when he has extended his vocabulary to

* The Hottentots and New Hollanders not beyond 3, if all accounts be true.

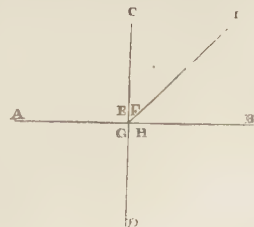
100 or more, which he must do as inevitably as he must learn to give names to trees or animals, he must observe all the simple rules of arithmetic, and may gradually extend them as far as we have done; but to say that he invents what existed before him, and exists around him without his intervention, is surely a singular mistake or misnomer.

GEOMETRY.

The same is true of Geometry as of Arithmetic, for wherever two or more atoms exist in juxtaposition to one another, it results from the practical impenetrability of matter: that as they cannot exist within one another, if two, that they must form a portion of a straight line; if three, either a straight line or a triangle; if four, either of these two figures, or a square or tetrahedron; if five, these figures, or a pentagon or hexahedron, and so on; if a hundred or a thousand, then they form, or may form, not only all the known forms of our geometry, but, if sufficiently numerous, myriads of forms our highest geometrical analysis never dreamed of, and probably never will or can reach.

We are in the habit of calling squares and circles, cubes and spheres, and such-like simple figures, perfect forms, and fancying that they are more beautiful or more perfect than more complex ones; and indeed they are so to us, as they are the only ones we can comprehend. But the amorphous mass of granite is quite as perfect in nature's eyes, and as complete and certain in all its forms and relations, as a lens of glass or billiard ball (assuming them to be what they pretend to be), and more so; but the latter are so simple in their outline, that we can reason upon them. The other defies our powers; but were our analysis sufficiently perfect to enable us to master its complexity, we should arrive at a very different conclusion.

In this case as in the other, all that man has done is to invent a nomenclature that will enable him to represent such of the phenomena as he has mastered and can comprehend. To take a simple example: after defining a straight line, he further defines, that if one straight line cut another so as to make the two E, F, or four angles E, F, G, and H, equal to one another, this line shall be said to be perpendicular to the other, and the angles called right angles; and lastly, if any line F I be drawn from the point of intersection, the two angles it forms



with the original line A B are equal to two right angles ; and this for the simple reason that they take up the whole space on that side of the line, which space was shewn previously to be taken up by the other two. Extending our reasoning, we may prove that the three angles of any triangle are and must be equal to two right angles, or that the square of the sides inclosing the right angle of any triangle must be equal to the square of the third side ; and all this as certainly as by shewing that 2 and 2 make 4, and that adding 6 we make 10, and multiplying by 4 the result is 40. It may be ascertained by direct experiment, but it is equally certain as the result of reasoning on the assumed premises indicated by our nomenclature, resulting from the direct observation of the laws which govern the relation of atoms or particles to one another as units, without reference to their relative positions, or as bodies existing relatively to one another, so as to make up masses bounded by forms.

By substituting symbols for aggregate ascertained problems we are enabled, both in Arithmetic and Geometry, to advance considerably further than it would be possible to do with the original, simple, but cumbrous nomenclature ; and it may be possible, by a further extension of that symbolism, to resolve problems that now seem utterly hopeless. But, even admitting all that the most sanguine hope can point to, it is, I fear, no hyperbole to say, that infinitely more will remain to be done than has yet been accomplished, or perhaps ever can be effected, by human intellect.

In both Arithmetic and Geometry, it is only the abstraction that we have here to deal with, as it is only this that is universally true, and indeed true at all ; the moment we apply them to material things, it can be only by accident that we are correct : for every one knows that it is impossible to make or find a perfect geometrical figure. And though we speak of two stones, two trees, or two animals, and multiply and divide greater numbers of them, unless the units are perfectly equal the result must always be false. If, for instance, I say a man has 10 dogs, and I take away 5, arithmetically I have taken away half, but in size or weight I may have taken away only a tenth, or a half, or three-fourths, or nine-tenths. Practical arithmetic, to be perfect, ought to take into account all the properties of the units ; so ought practical geometry to take into account all the irregularities of form : but to the human intellect I fear this is impossible, and we must remain content with a far less perfect science, or, in fact, with but an only partially applicable abstraction, though one practically sufficient for most of our purposes.

These two groups, however, Arithmetic and Geometry, taken of course in the most extended sense that words can reach to, comprehend all we know of the abstract relations of matter when at rest in *Space*. For I cannot see any other relation in which atoms, particles, or bodies can exist in space relatively to one another except as independent units, considered separately with reference to their *Number*; or as existing relatively to one another, in greater or less juxtaposition with reference to the *form* they then make up or are bounded by. Together they form the first great group of the universal science; to us, certainly, the most important, and at the same time, perhaps consequently, the most perfect.

But, besides these relations in space, there always exists a second class of relations, in which all phenomena may be considered relatively to one another, or with reference to *Time*.* The one being a state of rest, the other that of change.

Like the first, the second exists as an inevitable consequence of the practical impenetrability of matter. For it is evident, that if one body cannot exist within another body, when any change takes place by which one occupies or proceeds to occupy the place of another, the one body must first move out of the place it occupied before the other can move into it; in other words, wherever there is a change in the relative position of bodies, there must be a succession, and this succession we call Time: and this idea of change, succession, or time, whatever we please to call it, gives rise to the second great division of Universal Science, which, for want of a better name, I call

UNIVERSAL MECHANICS.

In speaking of Mathematics, or the relations of bodies in space, we consider them always as in a state of absolute rest at the moment to which our reasoning is applied. Whether bodies ever are so, is a question not easily answered. Perhaps the converse would be nearer truth, that all bodies are in a continual state of change. At all events, there is no proposition more self-evident than that there are changes in the relative

* The words Time and Space are so often and so familiarly used by us, that it is almost impossible to apply them with scientific exactness; and two new words should be invented to express the relations here indicated, abstractedly from the trivial

meaning of the words. Were this classification the important part of my book, I would do this; as it is a mere sketch, I have burdened it with as few new terms as possible.

positions of bodies to one another, and that these are successive; consequently, that there are times.

Some of these are so rapid that we can scarce measure them, some so slow that we cannot observe them; but between these extremes there are many that we cannot help observing, and have succeeded in measuring with very tolerable practical accuracy. Among these the principal are the motions of the heavenly bodies, from which we have taken all our notions of time; and, indeed, they are so obvious and so useful, and at the same time so familiar, that it is now difficult to abstract the idea of time from them and apply it to any other succession: but the growth of a tree, the fall of a stone, the progress of a leaf floating down a river, even a train of thought, are all times, irregular, and interrupted it may be, but not the less successive on that account.

Before conceiving a change or motion to take place between bodies or the particles of bodies, it is necessary for our understanding of this to assume the existence of a power causing that change. This, however, is nothing more than isolating a part of a series for the convenience of contemplation; for what is the cause of one phenomenon must be the effect of some preceding one; and so on backwards through a practically infinite series, which we should in vain endeavour to grasp, but by calling two links in the chain cause and effect, we separate them from preceding causes or effects, and thus can grasp them. As, for instance, a cannon-ball strikes a body and sets it in motion; that motion begets other motions or effects; and if we only want to examine those subsequent to the blow struck by the ball, we name that the cause, and do not go beyond it. Were it not for this, we should proceed to inquire what caused the motion in the ball—what the explosion in the powder—what the heat in the match—what the chemical action in the fire that was communicated to the match—what caused the property in the coals that caused that action—and back, in short, through an infinite series, to the beginning of time, and through a thousand minute causes which exist between the lighting of the fire and the blow of the ball, which our finite understanding would fail to grasp. But a cause is merely an effect that precedes another in any given series, and can only philosophically be viewed as such.

In the first division of Universal Science there are two great sub-divisions, those of number, and of form; so here all the phenomena may be considered in two lights, either statically or dynamically. Both include the idea of motion, but the first may be considered as a moment taken out of the

series, and the phenomena fixed there for the purposes of examination. In other words, every force is considered as counterbalanced by another force, so as by their exact antagonism to produce rest. Dynamically the bodies are considered as in motion, which is evidently the most difficult and complex way of considering them; and, probably, without the former, impossible for us. Together they enable us to obtain tolerably correct views on the subject; not that they are different, but only different ways of viewing the same subject.

Before we can hope to obtain any general views regarding pure mechanics, it will be necessary to invent some form of expression which shall represent matter in all its possible states; at present we consider it in only four arbitrary ones, not having advanced in this one step beyond the old blind guess of the ancients, who divided matter into Earth, Water, Air, and Fire,* *i. e.* into Mechanics, Hydraulics, Pneumatics, and Thermotics, assuming some metal or earth as a perfect solid, water as a perfect fluid, air as a perfect gas, and heat as a perfect imponderable: in all which we are egregiously wrong; but, even if correct, our series would still be singularly imperfect. For supposing a diamond to be nearly as perfect a solid as we have for one end of the series—there are all the metals, some hard and brittle, some elastic, some soft, some semi-fluid—there are the crumbling earths, the semi-fluid sands, the viscous oils, and indeed any given number of degrees of more or less perfect solidity and fluidity between the diamond and water, and as many between water and air, or air and heat; all which our science utterly neglects. Suppose, instead of four, we divided our scale into a hundred degrees—the diamond, 1; water, suppose 30 or 40; air, 60 or 70; heat, 100; it would be easy to assign a substance to almost every degree: but even this would not be sufficient, though we divided it into a thousand degrees. The truth being, it must form part of an infinite series, extending beyond any known substance we have either way—matter, as we know it, forming only a very small part of it.

When we know of one law, or have one single expression applicable to such a series, we may begin to hope one day that we may have a science of Universal Mechanics worthy of the name. Just now I can only indicate

* Chemists are in the habit of making themselves merry in ridiculing this, which they call the Chemistry of the ancients. They, it is true, have gone infinitely beyond it; but with the Greeks it was a mechanical, not a chemical division, and beyond which we have not advanced one step during the last two thousand years.

its place on the map, where it looks as the continent of Australia did on that of the world fifty years ago—a vast blank, whose position and general figure were known, and one or two ports explored and settled, by which we might hope to penetrate into the interior, but beyond that all was mystery.

What few notions we have regarding the general laws of motion are all derived from the motions of the planets, which being practically spherical bodies, moving in a practical vacuum, and acted upon practically by only one simple and continuous force, are certainly in the simplest possible condition for enabling us to understand their laws. When, however, we consider the mass of intellect that has been applied to the investigation of even this simple problem, and the smallness of the result, it certainly does not afford much encouragement to hope that we shall soon see any very general law deduced applicable to all the circumstances of the case. At present the laws discovered may be enumerated as these: first, that all bodies are mechanically inert, or that they are absolutely passive to any force that may be applied to them, without power in themselves either to change its direction or to increase or diminish its action; secondly, that to every action there is an equal and opposite reaction; and lastly, that every action continues to act independently of all other actions: and the corollary of this is, that when a body is acted upon by two forces simultaneously it assumes a direction compounded of the two. It is of course true that a great many subordinate propositions may be worked out of these general ones; but when we come to apply them to fluid or gaseous bodies, or bodies intermediate between them, or indeed to any bodies but the celestial ones, our science is at fault. And, indeed, it would be difficult to conceive a wider field than is still open to the inquirer in the science of pure mechanism, or a science more confessedly imperfect. It is, in truth, scarcely more perfect than the arithmetic of the savage, who cannot count beyond four or six.*

I have added in this table the science of Biotics, because I know that life does exist, and because I know that if I could discover any law which would be applicable to life in any place, and under any circumstances, it is here I should inscribe it. But I need not add, that I have not the most

* I need scarcely say, that the science of Mechanics I am here speaking of is not the Anthropic science usually understood by that term, which occupies itself with

levers, screws, pulleys, pumps, and such-like contrivances, but a universal science, which shall be as universal in its application and laws as either Arithmetic or Geometry.

remote conception of what any such law is, beyond the conviction that it does and must exist.

I need not enlarge more on these sciences here, as the only consideration requisite for their classification has been sufficiently stated ; which is their dependence on the impenetrability of matter only, and its development in space and time, and their consequent possibility of existence wherever individuals, space, and motion, can be conceived to exist. Whereas all other knowledge possessed by man consists of the description of bodies which do exist around him, and which cannot consequently exist elsewhere. Similar ones may, but we do not know it ; and, to say the least of it, it is most excessively improbable.

SECTION IV.

PHYSICAL SCIENCES.

TABLE B.			
ASTRONOMY	Space . . .	ETHEROLOGY	{ Chemistry Etherography Geography
		Time . . .	{ ?
		MINERALOGY	{ Chemistry Crystallography Meteorology? Morphology Geography
	Time . . .	{	Geology History
	Time . . .	{	Chemistry Anatomy Physiology Phytography Geography
History	Time . . .	{	Palæophytology History
History	Time . . .	{	Chemistry Anatomy Physiology Ontology Zoography Geography
History	Time . . .	{	Palæozoology History

PHYSICS.

AFTER these abstractions of space and time, which require only the postulate of one or more particles existing together and capable of motion for their entire elaboration, and can therefore be predicated of all such systems of atoms wherever existing, the remainder of our sciences are, as I said before, merely concerned with a description of the various bodies making up the sensible universe and their properties. And of these

sciences there can be no doubt, that in every natural classification Astronomy must always be placed the first; because the sidereal kingdom includes not only the whole of the stars, of which our sun is one, but all the genera of satellites, and also that individual of the species solar satellite, which is our earth, and to which the whole of the rest of our knowledge is confined.

Like every other science, there are only two points of view in which it can be considered. First, in space, or statically, as it exists without reference to time; and secondly, in time, dynamically or historically: a distinction which runs through the whole of this classification, and never can be lost sight of without leading to unbounded confusion.

In the present instance the latter section of Astronomy is singularly imperfect, and indeed can hardly be said to exist; and even the former, though usually called the most perfect of the sciences, is much less so than is commonly supposed, and owes its perfection only, if I may assert the paradox, to its imperfection.

In Zoology, for instance, if we could only examine minutely one animal, such as a dog, and only knew of it that it was of the simplest possible form, and revolved round a larger animal in the simplest possible path, and was accompanied by a smaller one, which revolved round it with nearly the same regularity as it round its primary, and that there were some half-dozen other dogs which, with their young, did so likewise; and if of all the other animals of the creation we only knew that they existed as specks, so distant that we could neither see their shapes nor motions, nor guess what they really were;—if such were really all our zoology, after a couple of centuries of intense study, it might be as perfect as even astronomy. But, fortunately, it possesses myriads of phenomena, each more instructive than the other; and though it may provoke the impatience of the systematist that he cannot guess them at once, and as easily as those of the stars, the true philosopher will rejoice in the endless multiplicity of information before him, knowing that the smallest insect is as perfect as the largest star, and that he may derive as much information from the study of the one as from that of the other.

With regard to the stars, which are the real province of Astronomy, all we have been able to do is to map them out as we see them in perspective, but without being able to measure, within a few thousands of millions of miles, either the distance of any one of them from ourselves or from one another. We have lately discovered that some binary stars revolve round

one another in a manner not easily intelligible ; but so little do we know that we are forced to assume, practically, that all the others are absolutely immovable, either as regards space or one another, though the exact converse is probably nearer the truth, or which, to say the least of it, is excessively improbable, if not impossible.

After this our knowledge is confined to our sun and its satellites. Of these we have measured the dimensions of our own with tolerable exactness, and have weighed it, but much more imperfectly, so that we cannot be sure within five, or probably ten per cent, of the truth ; and with this measure and this weight we have as certainly ascertained the size and gravity of the others, ascertained the times of their revolution, learned to express the ratio of their spheroidal forms and elliptical paths, and traced to their sources the small quantities by which these deviate from the regular figures we form with our instruments. We have done the same by the subordinate satellites, and latterly have also detected the returning revolutions of comets. This is not much, but if the statistics of the sidereal kingdom are imperfect, its history is still more so ; and perhaps there is not one single fact of sufficient importance to be dignified by that name. If the theory of the gradual cooling down of the sun's atmosphere and the successive formation of the planets were true, and that they again gave birth to their satellites ; or that the planets between Mars and Saturn burst and formed the asteroids—(one of the most untenable of theories) ; or if we knew when some comet fell into the sun, or forsook its erratic life and settled down into a moon ; such facts as these would form a history : but all we know is confined to the unvarying routine of their monotonous motions ; and their description, at any one period as far back as our knowledge extends, would present the same phenomena as now, and their history cannot, therefore, be said to exist within our reach.*

The other epithet of “the most sublime of sciences,” which is as commonly applied to it as that of “the most perfect,” has more truth and justice as its basis ; and even the simplicity arising from its imperfection is not one of the least of the elements of this effect : for, as in Mathematics, when we divest a problem of all those extraneous complexities with which nature works it, and simplify it, till our understandings can grasp the residue of truth, the effect produced on many is little short of sublimity ;

* The history of man's discoveries in | this name, belongs evidently to Anthropics,
Astronomy, which are usually dignified by | and can have no place here.

and much more so here, where simplicity, such as we can grasp, is combined with immensity no mind can compass; where self-evident truth fades into unfathomable mystery; where simple beauty rises into inconceivable grandeur; where the reason rests self-satisfied on facts, while the imagination toils in vain to realise their ultimate developement. No science calls forth more powerfully all the higher functions of man's intellect, or satisfies so completely all the nobler cravings of the soul. But we must not mistake this feeling of our minds for our knowledge of the stars, nor fancy, because we can scarcely grasp what we know, that we know more than an infinitesimal portion of what nature has spread before us, and given us the power of knowing still more and more about daily, though we can never know all.

It is of all sciences, too, the most theological, if I may use the expression; meaning thereby, the one that lifts us most completely out of our little world and its petty cares, and elevates the soul towards God; the one that enables man most easily to comprehend His immensity, and to feel his own insignificance; the one which enables him to form the most exalted, as well as the purest notions of the Divinity; and the one that could be made—though, unfortunately, this has not hitherto been the case—the most useful in disseminating pure religion, and leading men from the littleness of their daily occupations to a proper feeling of the greatness of the Divinity by which they are surrounded.

ETHEROLOGY.

From the contemplation of the stars, and of our earth as one of them, we descend at once to the surface of this our globe, which is one of the least of the many millions of the former, but to whose crust all the rest of our knowledge is confined. And no one has thought twice on the matter who does not know how imperfect our knowledge of even that crust is, and how very much we have yet to learn before we can be said to understand even its general bearings.

The objects existing on our globe are usually classed into three kingdoms—the Mineral, Vegetable, and Animal. But I have ventured, hypothetically at least, to add a fourth for the Imponderables, which do not appear to me, at least in our present state of knowledge of them, to

belong to either. And having done this, I have ventured to invent, or rather apply, two names to them—Etherics to the substance, and Etherology to the science. I am aware that many have attempted to prove that these are mere effects of intense action or motion among the particles of other bodies; but this, to say the least of it, is not proven, and till it is they must be classed somewhere, and not among the minerals, to which they otherwise must belong. Light, for instance, according to one theory, consists of minute particles emitted from luminous bodies; according to another, of the undulations of an ether: in the one case, light itself, in the other the medium of its transmission, belong to this class, unless the latter is assumed to be a ponderable mineral substance, which few would feel inclined to do. Heat, in like manner, may be merely intense chemical action, but it may as likely be an imponderable, evolved and set free by that action; and I cannot but look on electricity as a something in combination with the ponderable particles of matter to which they owe their affinities and actions—perhaps the fluid of mineral life, if I may use the expression: but, whatever they may be, in our present state of knowledge regarding them I think there is no doubt that it is more philosophical to class them apart, than to force them into combination with substances with which their affinity is, to say the least of it, so very hypothetical.

Many attempts have lately been made to prove that all the imponderables are only different forms of one substance or power, but I think quite unsuccessfully, and that the contrary process would be much more philosophical, and lead to more satisfactory results; for it does not follow that because electricity, magnetism, and galvanism, perform certain functions in common, that they are one, or one species, more than it follows because all quadrupeds walk on four legs, and eat similar substances, that they are of the same genera or species. On the contrary, by carefully marking every distinction, and classing apart every form which is not in all things identical with any other, we are more likely to distinguish their true characters and true relations than by slurring these over to produce a superficial similarity. The species may, of course, be grouped into genera—the genera into classes, to any extent that may be convenient, but I feel convinced that the first step towards a better knowledge of these mysterious entities would be a more careful separation of all the different forms; and I feel as sure that, whatever they are, we have yet many to add to them.

MINERALOGY.

The next kingdom, that of Minerals, is one regarding which there is no doubt either as to its limits or as to the substances it contains; nor is there much as to its classification, if we bear in mind that we are speaking of things as nature made them, not as man learnt, or conceives them.

The first process, in speaking either of an individual mass or of a kingdom, must be to reduce it to its simplest component elements, and this is the principal province of the science of Chemistry. In this department the labour of chemists has been so successful, that they have reduced all substances on the surface of the globe to between fifty and sixty elements; and it appears quite as probable that they may increase the number on the list as that they may reduce them. If, indeed, they could resolve the metals into two or more elements, they might simplify matters considerably, and effect what the alchemists sought when they founded the science; but nothing has been effected yet in this direction, and we must be content with our present empirical list till some fresh discovery throws new light on the matter.

The discovery of the so-called atomic theory by Dalton, and of the definite proportions in which gases mix, has done much to place this science on a fixed and philosophic base, and to guide the chemist in his researches. But hitherto the whole is merely empiric, and though we have discovered, by repeated experiments, that certain quantities of certain bodies always unite with certain proportions of others, or in multiples or submultiples of them, we are not yet able to suggest why this should be, nor even to form a distinct hypothesis which will represent the phenomenon. As I said, however, in speaking of Somatology, I think this might be done even now; at all events, I feel convinced that a very little advance in the science will enable us to do this, and thus open a new field of philosophic inquiry.

After reducing them to their elements, the next branch of inquiry is evidently to inquire what are the forms of these elements, or of their more simple and their more complex combinations—Mineral Anatomy, in short, if I may use the expression, but here called more usually Crystallography, which appears to me like confining animal anatomy to osteology, which may be very well for certain purposes, or for some of the more perfect animals, but will not apply to boneless mollusca, and

many of the simpler forms of insects, more than Crystallography will to the amorphous minerals, uncondensed gases, &c.

The third branch of the subject should be the same science as in Botany and Zoology is called Physiology, but in this kingdom has never been defined or understood; and it is too usual to assert that minerals are absolutely inert, which they certainly are not. In the first place, gravity is continually moving, crushing, and destroying them; chemical affinity altering their forms and compositions; the airs and gases are sweeping round the earth in perpetual motion; and the waters are mingling with them, falling in rains and dews, rising in springs and flowing in rivers; and the fires beneath the crust are shaking it in volcanoes, and bringing up fresh materials to the surface. To describe all this restless activity, we have only the science of Meteorology, connected only with the airs and waters, but omitting the action of the minerals on themselves, and the element of heat, which is as active and as important as either. One part is referred to Chemistry, another to Geology; yet I do not think it can be doubted but that the science of the active mineral force of motion ought to be one only, and that this is its place.

The next department is that of classification, without which the human mind could neither grasp nor understand so complex a subject as a kingdom of nature must at first sight be. In this respect, Mineralogy has been more unfortunate than either of her sister kingdoms: no characteristic having been discovered common to all minerals so as to form the basis of an artificial system, nor any basis being agreed upon for an entirely natural classification. As I shall return to the subject in speaking of Botany, I shall merely state here that the requisite for a perfectly natural classification is a perfect knowledge of all the properties and forms of the thing classified, and that it then is a mere question of subordination, each thing being classified first according to its most important characteristic, modified by its secondary and tertiary. Bearing this in mind, it certainly appears that in nine cases out of ten the chemical constitution of a mineral is its more important and most easily recognisable feature; but there are other cases when the chemist is at fault as to distinguishing between pure carbon and the diamond, and in which the crystallographer or morphologist must intervene. Still the latter will never be able to form a complete system of mineralogy, but in many cases afford an excellent secondary, and in some a primary characteristic: but besides these the colour, hard-

ness, gravity, taste, smell, state of concretion and texture, &c. should all be taken into account before we can hope to have a perfectly natural system on which it would be safe to reason. An artificial system being a mere *memoria technica* for man's own convenience, any one property common to all minerals, could such be discovered, would suffice, it matters not what it is, as no reasoning or results could be deduced from it.

These four or five sciences, or rather groups, into which the facts regarding the mineral kingdom are divided, suffice, if properly understood, for the description and knowledge of every individual or species, and to enable us to trace its relationship to those both above and below it; for the elaboration, however, of the whole of them, the specimens contained in a room of a museum or laboratory would in most instances be sufficient, individual or small portions of each being only concerned. But there consequently still remain two great relations or sciences to be considered before we can pretend to have any thing like a general view of the kingdom of which we are treating. They are the relation of minerals to each other in space and time, or, in other words, Geography and Geology. The first being a general *résumé* of the statical facts contained in the preceding sciences, the other a similar *résumé* of their dynamical facts or motions.

The first describes the geographical distribution of minerals on the surface of the globe; in the great division of lands, water and atmosphere defining the boundaries, and as far as possible the dimensions of each, what are its component parts, and how these are arranged relatively to one another: in short, physical geography, so far as the minerals of our globe are concerned; and as such it has long been studied, and is tolerably understood, except that it is too often mixed up with the physical geography of the vegetable and animal kingdoms.

The other is the youngest of the natural sciences, but the one in which our progress has of late years been most rapid, and which promises to open up to its votaries the most extraordinary or instructive results. No one who has not attentively observed what an immense gap formerly existed in our chain of knowledge, in the place that science now occupies, can be aware of its immense value towards obtaining general views; before it was studied the ancient history of our world was a blank, and our steps daily wandered amidst phenomena which were utterly incomprehensible. Now every hill and every valley speaks to us in a clear and intelligible language, and every rock has its history written on its brow in characters which all can understand; and these records of primeval worlds

extend back through periods of years which the imagination toils in vain to grasp, and render the little speck of man's history as insignificant in time as his globe is in space.

It is true this science wants that simplicity and regularity which characterise our knowledge of the stars, and it is not therefore so easy to measure its immensity or comprehend its form; but as Astronomy is that science that best enables us to elevate our minds to the noblest conceptions of space, so this is the one, and the only one, that enables our minds to realise a practical infinity of time: for, looking even at what we see on the surface of our globe, we can as little measure the vast epochs that must have been consumed in its formation, as we can realise to our conception the distance that separates us from the stars. But if the history of our little planet stretches so far back into the abyss of time, what must be the history of the older planets? what that of the sun, or that of the stars? shall we ever see or know? or if we saw or knew, should we be able to conceive? Most probably not; but even now it is no small privilege to know so much as we do, and to be able to elevate our minds by such realisations as we can form of these distances of time and space. And though no man may know God, let no man say that he has realised to himself such a notion of the Divinity as it is given to him to know and understand, till he has thoroughly familiarised his mind with those immensities, and knows that God is not only infinitely beyond, but was eternally before all these.

BOTANY.

The principal divisions under which vegetables, or the vegetable kingdom, come to be considered, are nearly the same as those pointed out in speaking of the mineral, but with most marked differences with regard to the relative importance of each: thus Chemistry, so all-important in the former, ceases to be of any thing like the same importance in this, all its forms being modified by a new power—that of life, which here supervenes; which, from the complicated structure it requires, renders the two next branches, those of Vegetable Anatomy and Physiology, all-important; and so numerous and complex are their forms

and functions, that it appears next to impossible to arrange and understand them all.

What is life? is a question that has often been asked, but probably never will be answered. It is easy to say, that it is a power which decomposes certain substances, assimilates what it requires, and rejects what is useless, and disposes what it has assimilated in a certain form requisite for decomposition and assimilation, and so on. This as well as every other definition that I have seen is a mere description of the functions of the power, not of the power itself.

In fact, all we can do is to describe, as we find them, the cellular tissues and ducts, of which, variously modified, plants are composed; the fibres and layers which principally make up the internal, and the epidermis and stomata that compose the external structure; then describe the grouping together of these into roots and leaves, connected by woody structure, exogenous and endogenous, which form the bones of the system, where bones there are; and, lastly, the flowers and fruit which make up the reproductive system; these make up the anatomy of plants. And, again, considering them physiologically, there are the systems of absorption, circulation, and secretion, for the sustentation of plants; flowering, fecundation, ripening, germination, &c. for their reproduction; and, lastly, growth, disease and death,—a principle of limited time introduced with life, unknown to minerals, whose period of existence so far as we know is indefinite and undetermined, but to every thing that has life there is fixed a course that it must run. But though the individual must perish, to all it is given to live on in their offspring, which differ in nothing from themselves, till it becomes more like the oscillation to and fro of one individual throughout an indefinite time, than the limited career between birth and death, which seems the beginning and end of each individual.

Much yet remains to be done before these sciences of anatomy and physiology can be said to be even moderately complete. But they, in fact, form the essential philosophy of plants; and on them, and the relative importance of the organs or functions as determined by them, must every classification of the various species be based. In this last respect no science has been more fortunate than botany, either with regard to the talents and industry of the men who have worked at it, or the success that has attended their labours. It even possesses, what no other science does, an artificial and a natural system, both of which, if not absolutely

necessary, are at least eminently useful, in every science. Singularly enough, in this country a controversy has arisen between the advocates of the two, as if the one ought to supersede the other; but as well might the grammarians try and put down the lexicographers. For, in truth, the Linnean system is nothing else than a dictionary of plants, like one of words, arranged according to the initial letters; it admits of strange combinations, and you cannot look down a page of a dictionary without finding the most dissimilar words placed in immediate juxtaposition; and, on the contrary, such words as "loved," "beloved," and "unloved," placed at opposite extremes, though evidently belonging to the same root: still the first letter, or the number of stamens or pistils, is easily remembered, and at once enables us to find the word or plant in our lexicons, accompanied by its description or derivation. On the other hand, it is no doubt very useful to have plants classed naturally, as words are in grammars, into nouns, adjectives, verbs, &c., and these subdivided into declensions and conjugations; but I wish the naturalists would imitate the grammarians in admitting lists of irregular plants, instead of forcing these into places where they do not fit, or multiplying genera to an inconvenient extent; and, above all, that between each class or genus a list of neuters which belong equally to either: for Nature's gradations are so gradual, that I question very much if ever we shall be able distinctly to circumscribe her products; and that we must always classify more by types, grouping around them similar species, than by attempting to circumscribe strictly the limits of a class. Nor do I see any advantage to be gained by this; for we must always remember that by no system or classification can we alter one iota of the kingdoms we are describing, nor change, in the smallest degree, the relation of one plant to another; all that we should propose to ourselves is a system where we can conveniently find a name or plant, or to find plants so grouped that we can conveniently grasp the relative extent of groups, or the relation one to another of either the groups, or the subdivisions they contain.

If conducted on truly philosophical principles, there certainly does not appear to be almost any branch of natural science to which the industry of scientific men may be more properly applied than in improving the classifications, provided it is always borne in mind, that no such thing exists in Nature. She works out her problems with a complexity and infinity of detail which man can never comprehend; and though

every plant is subject to the most immutable laws, and the most perfect regularity reigns from the minute ultimate particles to the whole aggregated kingdom, it is not such a formal arrangement as our classification attempts. Nature comprehends all, but man's finite understanding can only comprehend a part, and that only when the problem is presented to him in its simplest form, and with the fewest possible details; but it is only by grouping and simplification that he can grasp any part of the whole, and that classification seems therefore best which shall present the problem to him in the fewest and simplest terms: but this is all he can hope ever to attain by classifying, though, in fact, this is a great deal, for any portion of truth is better than the incomprehensible confusion that without this must to him apparently reign in Nature's works.

The two remaining divisions, those of the physical geography of plants and their history, are easily understood. The former has been often defined and written; the latter has been, and correctly, included in the division of Geology, under the head of Palæophytography, and brings the history down from the earliest period of incipient development of vegetable life, till that period when man interfered, after which the remainder of the tale is included in his history.

ZOOLOGY.

The arrangement of the sciences which make up the body of zoological knowledge is naturally the same as that of the botanical ones, with the exception that it is necessary to interpolate a science of mental physiology, or ontology, after that of physiology, properly so called.

In its present state, the science of animal chemistry is even more imperfect than that of vegetable substances; but it by no means follows that it is to remain so. On the contrary, from what has already been done, it is more than probable that, when more fully worked out, and the relations of these proximate bodies properly observed, especially under the influences of electricity and galvanism, that they may open to us new views of animal actions utterly unsuspected at present, and may revolutionise the whole science. Indeed, I do not see whence

any great addition to our knowledge of life is to come, if not from this science.

The next three sciences—Anatomy, Physiology, and Ontology—are, properly speaking, only one, as together they only make up a physical description of an animal or man, but they are thus divided for the sake of convenient contemplation. The first is a description of all the parts of an animal, but considering the animal as inanimate or dead. The second considers the same parts, but now considers the animal as animated, but only in the sense in which we apply that word to plants, as organs performing certain functions, mechanical, or nutritive, or reproductive, necessary for the existence of the individual or the continuance of his race. The third considers the same animal as intellectualised, or as performing those functions for which he was created, and to which the other two are subordinate; for it is this alone that renders him better than the plants, or ranks him higher in the scale of beings.

In the whole range of human knowledge no science is so imperfect or full of error as this last; and, even now, it scarcely contains a single fact which can be used as a stepping-stone for forward progress; and this not from any want of attention to it, or want of industry and intellect on the part of the inquirers, but simply from their being all in the wrong path, proceeding from no definite collection of facts, and mistaking the direction in which the truth lies. The greater part of this is, no doubt, owing to our foolish worship of the metaphysics of the Greeks, which is pretty and ingenious enough, it must be confessed, but with no claim to being a science in the sense we now use that term, viz. as a collection of classified facts; and something is also due to the timidity with which some have dreaded to unsettle certain religious dogmata which were supposed to bear on the case, or the intemperance with which others have used them for the opposite purpose: but neither our belief nor our unbelief can alter facts which were the same at the beginning of the world as now, and probably will continue the same through all time; and they must have meaner notions of the Deity than I can understand, who fancy that increased knowledge can have any other effect than shewing us more and more of that perfection which we can never either wholly understand or approach, but of which glimmerings are given to all who look below the surface of things.

In this country, the very name of the science of comparative ontology is almost unknown. In France, several bolder thinkers have ventured to guess at its existence; and Descartes, Buffon, De Candolle, and Cuvier,

have each hazarded some crude speculations on the subject; but the only parties who have really approached it are the phrenologists. They, it is true, exposed themselves to refutation and much ridicule by too hasty generalisation, and by a very imperfect classification of the faculties of the human mind and still more imperfect map of the human brain; but, notwithstanding these defects, they undoubtedly were the first to bring metaphysics within the range of induction, and to propose a theory which accounted for the difference between the intellect of different beings, and assigned an intelligible organism for the operations of the mind, which, whatever they may be, cannot come out of nothing.

One objection to this theory, which may be taken as a specimen of all, is the apparent injustice of one man being endowed in birth with all the powers of intellect, while another is so feebly gifted that by no industry can he reach what the other does without thinking. Yet they who make this objection see hourly strong and healthy men pass their doors in all the pride of health, and strength, and beauty, and followed by men cripples from the cradle, who never knew health or animal enjoyment, and whose lot seems disease and deformity: and if this is the case with bodies, why should it not be with minds? But why ask these questions? Is it not so? There is no law so certain as that of the interminable variety of all created beings, and I question if it could be proved that any two are or ever were alike; and it would be easy to shew why no two should be so. All, however, stand on the steps of the same infinite ladder of life; all have the power of ascending, and all must fall unless they use such faculties as are given them to enable them to ascend; and he who, born near the top, ascends but one step, is a less prosperous and less happy man than he who, near the bottom, rises through two.

To me, however, the greatest merit of the theory is an explanation of the comparative ontology of animals, based on the invariable ratio of cerebral to mental developement; and from the lowest polype to the hugest mammal I know of no fact to invalidate the conclusion that the one is in the direct ratio of the other, and that the superiority of man in this respect is only owing to the superior developement of his nervous system, and that his intellect is not a thing differing in kind from that of animals, but merely in extent. To this, however, I shall have occasion to return presently. We shall, meantime, dismiss the three remaining branches of zoology with a very few remarks.

Taxonomy, or classification, certainly has not been so successful in

zoology as in botany; and no good artificial system has ever been proposed, though certainly it is by no means so much required here as in the sister science, for here the leading division into mammals, birds, amphibia, fishes, &c. for vertebrata, and of mollusks, insects, vermes, zoophytes, &c. for the other class, are sufficiently distinct, and easily recognisable, to enable us to dispense with any system which should run through the whole; and except the insects, and perhaps the fishes, there are no classes so numerous or unfamiliar as to require this technical aid, though it would, no doubt, be useful and convenient in all.

On the other hand, the principal natural groups of species are sufficiently defined and understood; but no good natural classification of them has been proposed. Most naturalists have attempted to arrange them in a straight line succeeding one another; but this, as might be expected, has failed: and recently an attempt was made to arrange them all in groups perfectly circular.* And certainly some curious analogies were brought to light by this process, which in themselves were a sufficient reward for the attempt, though the system failed, as all rigid systems must; for there is no mistake like that of supposing that Nature can be described by a straight line, or circumscribed by a circle. It is very well for us to use these simple, hard figures, because they are those which are most easily comprehensible to our very limited intellectual powers; but it does not follow that because they are the ones he can most easily describe with his rules or compasses, or most easily express with his clumsy arithmetic, that Nature is to be so limited and confined. Of one thing, I think, we may be certain, that Nature's lines and curves are of a higher order, and that along every infinitesimal fractional part of them they are governed by considerations of fitness and purpose of a higher order than we shall probably ever compass; and that the utmost we can ever do is to observe and guess at its approximation, and get nearer and nearer the truth, but without the hope of ever knowing the whole.

Viewed in this light, we shall find the natural arrangement of living beings, or of any other class of Nature's works, an ever-varying complex line, returning often on itself, bulging out here, contracted there; sometimes hurrying on over apparent gaps, then crowding creations almost on the top of one another; but never without a purpose. And the highest task for science is, first to detect these irregularities, then to guess at their

* Principally Macleay and Swainson in this country.

causes; and every attempt at classification is valuable, because it helps to this: but this is all it is good for beyond being a *memoria technica*, for we can neither make nor unmake, nor alter one iota of what is and will be for ever, in spite of our sciences and our systems.

As in the case of botany, the two remaining sciences require but few remarks. The physical geography of the animal kingdom is well understood, though it has seldom been attempted in the full extent to what it might be carried, with profit and instruction; but at the same time it must be confessed that man has introduced so many changes into the habits and the habitats of animals, that it is not easy always to separate what belongs to physics and what to anthropics; and for a proper classification it is absolutely requisite that this should always be studiously borne in mind.

Palæozoography, or that part of geology which concerns specially the ancient history of animals, requires as few remarks, for both its objects and limits are perfectly understood. The science merges, however, into history; but when this is the case it is always requisite to distinguish carefully, as in physical geography, what belongs to man, what to nature; and as the essence of the classification is the distinction between those two, the distinction cannot be overlooked without tending to confusion.

In the above classification of the physical sciences there is nothing either new or not generally adopted already, unless it be the division of Chemistry and Geology into three sciences, to suit each division of the natural kingdom, instead of placing them as single sciences. In their present state I admit this new arrangement is liable to several objections, and that it is expedient at present to consider them as one, because the proofs of the facts of any branch rest on the collateral support of the others, and cannot well be understood without considering the whole; but this is only because these sciences are young, and their facts not yet acknowledged. But it is evident that when this argument shall lose its force, and after all it is merely a consideration of convenience for us in learning it, not a fact based on the consideration of nature, and as science advances, the necessity for the separation I have ventured to make will become more and more apparent.

If, however, this is objected to, the difficulty is easily obviated by arranging them as in the annexed table, which being read from left to right—horizontally—instead of from top to bottom, not only restores

Chemistry and Geology to their usual limits, but groups all the sciences into their more common boundaries; and this, of course, without altering one fact or affinity pointed out by the other table. The first is, I am convinced, the clearest and most philosophical way of arranging them. But if the other is thought more convenient, either for their investigation or communication, there cannot possibly be an objection to its adoption. Indeed it appears to me that all tabular classifications should be written backwards and forwards, and upwards and downwards, and angleways across, so as to bring out all the relations that exist between their component parts. Nothing is so much to be dreaded in classification as rigidity and attempted mathematical precision—it does not exist in nature, and cannot consequently exist in any true picture of it; while a true classification will easily stand this test,—and, on the other hand, this being the case is perhaps the best test of its being a true system.

ETHEROLOGY.	MINERALOGY.	BOTANY.	ZOOLOGY.
Chemistry.	Chemistry.	Chemistry.	Chemistry.
—————	Crystallography. ?	Anatomy.	Anatomy.
—— ? ———	————— ? ———	Physiology.	Physiology.
—————	—————	—————	Ontology.
Etherography.	Morphology.	Phytography.	Zoography.
Geography.	Geography.	Geography.	Geography.
Geology. ?	Geology.	Palæophytography.	Palæozoography.
History.	History.	History.	History.

I have hurried rapidly through these sciences, because they do not strictly belong to my subject; but I hope I have said enough to shew what I believe to be the natural, and perhaps the only natural, classification of them. In the first place, their division into three, or perhaps four, kingdoms is so old and so well established that it cannot now be disputed; and when we take up any individual of any of them, it appears to me that we should always consider it, first, chemically, or try to ascertain what its constituent elements are; in the second place, anatomically, or with reference to its form; thirdly, physiologically, or with regard to its functions; and fourthly, with reference to its affinities or relations to other similar or nearly allied families. And again, it is important to know its habitat and place where it is found; and lastly, its history, whether within the historical period or geologically before that time.

These six relations seem to me to comprehend all that can be predicated with certainty regarding any individual species, and to group the phenomena

with sufficient distinctness; and at the same time, when predicated of large groups or kingdoms, they form and place in their natural order all the physical sciences: whether we consider each of the three kingdoms separately, or all three at once as parallel, as is now generally done in Chemistry, Physics, Geography, and Geology, though not, generally speaking, with regard to the other three, which, being older and more complete, have naturally separated themselves into their constituent groups; and the same must soon, I conceive, be done with regard to even these, and, indeed, is partially done at present.

One science remains which many will miss in this arrangement, and probably be puzzled to know where to place it,—which is that of Nosology, or the science of disease. I consider it, however, as merely a part of Physiology, the existence of a state of disease being as necessary in the scheme of nature as that of health; being merely an absence of usual health, as cold is merely negative heat, or an absence of what we consider the usual and proper temperature.

I do not know if disease can be predicated with propriety of minerals; but they certainly disintegrate, decay, and are dispersed or fused into new compounds, but whether this is disease or not is not quite clear. All plants, however, die as certainly as animals, and natural death is the result of disease or violent disorganisation: but plants, too, may be poisoned, and premature decay and its concomitant deformity come on; and no two plants are perhaps equally healthy, the less so being diseased when compared with its neighbour.

In animals, disease scarce requires a definition: a perfectly healthy organ in animals being one that performs all the functions for which it was created. But how few do this: and in man particularly, in the artificial state in which he is forced to live in crowded communities, the state of disease is of such frequent occurrence and so painful, that more attention has been turned towards its mitigation than towards almost any other object, and the medical sciences, in consequence, form a group in bulk and importance which they are very little entitled to in a truly scientific point of view. In every classification and every encyclopædia they take up an immense space, but, reduced to their true value, they consist merely in remedies applied to an exceptional and painful state; but to us their importance is such that Nosology is by most persons considered as a most important science, and the arts founded on it as one of the most important groups that can occupy the attention of men.

priety of considering the less complex, but more extensive, organisations before the more complicated ones—there can be no doubt that, in speaking of the animal kingdom, we must likewise begin with the simplest forms, which touch more nearly on those of vegetable existence, and ascend upwards from the zoophytes and annelidæ to the vertebrated animals; and must consider man, whatever system we adopt, as the highest and most perfect of animals, as he is certainly the last created.

That he is the most perfect of animals is, I think, admitted by all parties: but there is a certain class of philosophers who would willingly degrade man, and more especially his religion; and they strive hard to do so, by proving that man is only an animal like others, closely allied to the monkeys, and possessing no form or faculty the counterpart of which may not be found to exist among the lower animals. Another class have felt not a little indignant at finding the genus *Homo* classed among the bimanous monkeys, have attempted to deny some of the inferences of their opponents, and slur over others, and, with more zeal than discretion, have rushed forward to rescue the immortal soul of man from among the beasts that perish. Had they only improved their system of metaphysics, instead of attempting to deny the truths of physiology, they might easily have accomplished this; as it is, the question remains, like all those that refer to mental philosophy, buried under a mass of rubbish we have inherited from the Greeks, which common sense tries in vain to penetrate.

The truth appears to be, that man may be considered under two perfectly distinct lights. First, physically, as an object of zoological science, or as an animal, which in every physical respect he is; and secondly, anthropically, as a being possessing properties and faculties of which no other animal has a trace. This last is, properly speaking, the only characteristic with which this book is concerned; but, before considering it, it may be as well to allude briefly to his physical properties, to enable us to separate them from the anthropic ones.

The annexed table, though neither so perfect as it should be, nor even indeed as I could make it had I more leisure to bestow upon it, is still sufficient to shew what is meant by a physical description of man, arranged, according to the classification adopted above, with reference to all animals to which this table will apply, as well as to the human species, the difference being only one of degree; and if a like description were written of monkeys, dogs, beavers, elephants, ants, or any other animals that might be selected, all that could be said is, that man combined in himself all that

was found isolated in some animals, and generally in a degree of perfection not found elsewhere.

Chemically, there is no difference in the composition of the tissues which compose the human body and those of animals ; and anatomically, though there is no form in the lower animals precisely identical with that of man, there is no bone or muscle for which a counterpart may not be found in them ; and all the viscera, the circulating, respiratory, and nervous organs are found, with only slight variations, in other vertebrate species. Throughout nature similar forms perform similar functions : so that in physiology we find the same phenomena reproduced among the lower kinds as in the human species, and in many instances the functions are more perfect in animals than in men. The scent of a dog is almost a new sense, of which we know nothing ; so is the sight of a vulture ; and many animals can hear distinctly sounds perfectly inaudible to the acutest human ears. Many have powers of digestion or of sustaining privation that we know nothing of ; and, indeed, so far as anatomy and physiology are concerned, I fear man must acknowledge his inferiority to other animals, at least in individual selected instances : as a complete whole he may be superior, but at best it is only a superiority of degree.

In ascending the scale, however, to ontology or mental physiology, we feel at once we are treating of man as an animal very much superior to any other that we are acquainted with ; still I do not think that a single mental faculty can be distinctly pointed to in the human organisation which cannot be found in lower animals. I admit that in them it is often indistinct and generally less perfect ; and as we descend lower in the scale of vertebrate animals, in applying this table to them we should frequently be obliged to mark only "a trace" opposite the corresponding faculty in the human subject : still it exists, and that is all that is contended for.

It is generally said that animals are guided by instinct, man by reason. In most cases this is true, but man possesses all the instincts of the lower animals, and would be as subject to them as they are, but for the preponderancy of his reasoning powers, which enable him to check and control them when he pleases ; and in a thoroughly civilised and educated man the instincts are entirely under control, but with most men, in all those that refer to sexual intercourse, a love of offspring, and such-like, we can boast of little superiority over our animal compeers. Even the emotions of affection, or gratitude, or hatred, or others of the same class, which hold an intermediate place between the instincts and in-

tellects, as often are allowed to degenerate into the former as raised to the grade of intellectual elective affinities.

Still man has always the power of controlling both his instincts and emotions. The lower animals have not always that power, or only in a less degree; with them they are as the sympathetic nerves, or nerves of involuntary motion, with us, and seem to be a certain constitution of the mental faculties, so arranged that they act of themselves, guiding the animal to certain acts with scarcely any volition on its part, and with only a very imperfect power of refraining from doing what it is thus prompted to perform. Still fear will enable almost any animal to control even its most powerful instinctive appetites; and the domestic animals may be educated into a species of command, which almost takes the place of reason. On the other hand, man's intellect is often so weak that he abandons himself to the gratification of his instincts, often more completely than any animal he could quote.

Besides these, however, there is the reason, properly so called, with its handmaidens the senses and memory. With the former it collects all the information it possesses regarding the external world (perhaps all it can possess, though this is not quite clear), and this knowledge is stored in the memory, without which it would be of no more use to us than the reflection of an image in a pool of water is to the stream of which it forms a part, or than the vibration of a wall is capable of conveying an idea of sound to a room of which it forms one side. Between these two stands the intellect in its synthetic and analytic form, combining, separating, and comparing; or exercising the faculties generally called imagination, comparison, reason, &c., which, collecting impressions from the senses, compare them with those previously stored in the memory; or, combining those only which are there, produces new combinations, which it may ask nature or his arts to fix in some tangible form, or only lay them past again in his memory, to be used or forgotten, as the case may be.

The ideas received through our senses are, no doubt, the foundation of all our knowledge, but they compose, in their simple forms, only a very small portion indeed of the mass of ideas with which a man's memory is stored, which may either have been invented by his own intellectual activity, or communicated to him more or less perfectly from the inventive or comparing faculty of some other mind.

All the more perfect animals, however, have the same senses as ourselves

—all possess a memory more or less perfect ; and though their reason is not equal to man's, all possess the power of comparing present sensations with past experience, and acting accordingly. Indeed, in all these respects it appears to me impossible to escape the conclusion, that man must be classed with the other animals, but as an exceptional genus, far more perfect than any other ; still, speaking physically, without any such marked difference as could enable us to separate man in a scientific point of view from them, and class him apart, as something totally distinct.

Those who have hitherto argued the point, have either attempted to deny these premises *in toto*, or have been contented with proving them, and then considering the question as settled. But herein lies the mistake, for I think that the science of Anthropics, to which I shall now proceed, is quite a sufficient addition to the Physics of the human race to justify any naturalist in saying that man is something quite different from any animal we know of. Before, however, proceeding to them, I must point out one thing in the classification which may require explanation. In the same table with the emotions, intellect, memory, &c., I have added morals and religion, because I believe them to be faculties of the same sort or class as those that precede them, differing only in kind. But, at the same time, if they are to be so classed, it is tolerably evident that the line between Physics and Anthropics must be drawn here ; for I do not know that it has ever been contended that animals have any knowledge of what was abstractedly right or wrong, or any knowledge of a Supreme Being, or reasoned, or could reason, on the possibility of a future state. These developements belong peculiarly to man, and therefore to Anthropics, but at the same time are so similar, and depend so much on the intellect of man, that it is impossible not to place them in juxtaposition. By a rigid analysis it could be proved that we arrive at our moral conclusions by the same process of reasoning by which we judge of any physical or mathematical fact. We observe certain consequences, good or evil, resulting from certain acts, and conclude that the actions are right or wrong in so far as their consequences result in happiness or misery to ourselves and others : and though not quite so true, it may be contended, and often has been so, that our knowledge of the Deity is the result of experience, and what is called Natural Theology is merely an argument to prove, from physical facts, that God does exist.

By a parity of reasoning it may be contended that the perception of beauty, or harmony of colours, is a mere act of seeing, and that the

appreciation of beauty in music is merely one of hearing; and the argument is correct so far as it goes—the fact being that they are seeing and hearing, and something more. To some men they are merely colour and sound, to most men they are a great deal more; and the philosopher cannot deny that there is something that the human mind appreciates and feels almost without knowing why, and long before he begins to analyse the constituent elements of the sensation.

It requires no reasoning *à priori* to enable the true artist to appreciate colour in a landscape, and reproduce it in his picture, to the delight of all who see it; nor is it the result of reasoning that causes a crowd to be exhilarated by lively music, or hushed into mournful silence by a plaintive air.

Reason may analyse these sensations, tell us how they come to pass, and prove that they must have been so and could not be otherwise, and education may give us a ten times keener sense of them, and a higher appreciation of their beauties, but there was something in man, and which is not in the animals, that first gave rise to and created them.

The case with morals and religion appears to me almost perfectly analogous; they are, if not new senses, certainly new instincts,—taking that word in its most extended and most absolute sense,—known only to the human species, felt only in the first instance, but capable of being analysed and reasoned upon by the intellect; and the immediate impulses to which they would lead, capable of being checked, or proved, or rejected by reason, and strengthened to any extent by education properly directed.

Whether this is a correct description or not of these faculties is not of much consequence to my present purpose, all that is here contended for is that no animal in a state of nature has a knowledge of what is absolutely right or wrong; while nothing is more characteristic of man, in every relation of life, and, however much he may often be mistaken in his notions on this subject, it governs his actions more than any feeling or instinct he possesses.

In the same manner, no animal has, or I believe can have, any notion of a Deity, yet no man, or set of men, ever have existed without it; it may have been mere fetichism, or gross superstition, or the bold bravado of negation, but all men's minds are more or less, and always have been, occupied by it. These two, therefore, whether we call them instincts, emotions, or faculties, are as distinct characteristics of humanity as new senses or organs of a material nature would be, and if viewed in a right

light, far more important, inasmuch as all mental faculties are superior to all material ones.

To these, however, I must return presently ; and in the meantime I shall pass on to some of the more ordinary, though generally instinctive, peculiarities of man.

DIVISION OF LABOUR AND PROGRESS.

The two first characteristics of Anthropic Science with which we have to deal are the division of labour and aggregation of experiences, which take the same place here that the consideration of space and time occupied in treating of Universal Science. They are common to all the arts, essential to all, and without a correct appreciation of what they are, it is impossible to understand either how they are formed or perfected.

By division of labour I do not of course mean what is usually understood by the term, namely, the assignment to different workmen in a factory of particular subordinate processes in the production of an article, as in the now classical examples of pin or nail-making, or for enabling flax or cotton-spinners to produce their fabrics at the cheapest possible price. This is the last and minutest subdivision of the subject. But what is here insisted upon are the great divisions that separate mankind into different classes, perfectly distinct as far as their pursuits and development are concerned : as, for instance, into the great agricultural and manufacturing classes of this country ; and into the commercial class, wholly occupied in the interchange of their productions ; and again into a governing class, whether as legislators, or those concerned as judges or lawyers, as carrying their decrees into effect ; or as a police, international or internal, for the protection of life or property ; or again, into medical men or clergy, devoting themselves to the corporeal or spiritual welfare of the people ;—in short, into all the thousand and one classes into which human society is divided. Besides these, there are, again, the great classes of the rich and of the poor—of those who do apparently nothing for themselves, but are constantly waited upon by others, and those whom no one helps, but who must do every thing for themselves—the luxurious and idle class of consumers and the hewers of wood and drawers of water ; or again, into the intellectual and mechanical classes, into those whose hands are soft and whose bodies are uninured to toil, but who depend for their subsistence on the products of their hard-wrought, racking brains,

and those whose hands are hard and their frames capable of enduring any extent of bodily toil, but whose heads are of little more use to them than those of the inferior animals are to their wearers,—sufficient to guide them in the selection of their food, and to satisfy the exigencies of animal life.

In a civilised community like that of this country it would not be difficult to divide its twenty millions of inhabitants into a thousand classes, as distinct in their functions and in their action on the material world, as the thousand species into which naturalists classify the mammalia, and to subdivide them in a hundred thousand varieties, not only performing all the separate functions of all the separate species of animals, but thousands of functions which the lower animals do not perform, and have no trace of any power by which they might be taught to perform them.

But in all this complexity of functions man is still one genus, and, for all practical purposes, only one species; and it is this unity in multiplicity, and multiplicity in unity, that gives him his almost infinite power over the material universe: and while each individual animal does every thing for itself, and each individual species performs its own limited part in the great drama of creation, unassisted by its kindred species and incapable of influencing them, man alone, in all the Protean forms he is capable of assuming, can combine all these various effects to one great end; and, whether consciously or not, all mankind do work together, assisting and aiding one another by their efforts and experience, towards an increase of knowledge and power to which we see no limit.

I need not say that there is no division of labour among the lower animals,* the only trace of it that does exist is sexual; and when two animals of the same species take different tasks, it must be from the care of their offspring or something arising from this cause. If man had not had the power of subdividing his energies further he could never have raised himself above the lower animals, and if he had to procure and prepare his own food, build his own hut, provide his own clothing, and singly to meet all the necessities of his condition, all intellectual enjoyments, all the refinement of civilised life, must have

* Among some insects, indeed, such as ants, bees, &c., there does appear something like it, but with them the change is organic, an insect transformation, such as takes place when the caterpillar expands into the butterfly—something we do not quite comprehend: but, from whatever

cause it arises, no free will or choice is perceptible, and, both in extent and purposes, it is so different from what takes place among men, that I scarce think any one could seriously think of tracing an analogy between them.

remained for ever unknown to him; and philosophers—if such could have existed—might not have been so far wrong in considering man as merely the best of the monkeys.

Viewed in this light, this division of labour, or, in other words, this inequality in the condition of men, I look upon not only as one of the greatest privileges but as one of the most essential characteristics of humanity, without which man could not be what he is; and those who rave about the perfect equality of all mankind either do not know what they ask, or mean merely equality of civil rights in a state, which is perfectly intelligible: but whatever our opinion may be, Nature has provided for essential inequality by making all men different, not only as far as concerns their intellectual or bodily powers, but giving to all different tastes and tempers, so that no two probably ever were, or ever could be, perfectly equal. But amidst all this essential inequality of power and position, those who look below the surface will find the most perfect equality as to happiness and power of enjoyment given to all men; and if we could collect and thoroughly sift the biographies of mankind, we would find that, as far as real enjoyment of life went, the poor had nothing to envy the rich for, by the time they had completed their threescore years and ten; and that whatever apparent immunities or advantages the one possessed over the other class, were purchased at a price which was not exacted from the other. Nor are even intellectual gifts always sources of unmitigated happiness. Ask those who have soared nearest to heaven, and if they answer truly, they will tell you that they have had glimpses of hell that have made them shudder, perhaps loathe the life they would, but dared not, escape from. Some, of course, there are, who, to our imperfect ken, appear to enjoy great prosperity or are sunk into unmitigated suffering; and a medium class, who neither enjoy nor suffer, but blunder through life in stupid contentment, little raised above the lower animals. But whether we speak of the extremes or means, whether the pendulum of life vibrates through a semicircle or through an almost imperceptible arc at the bottom, no fact in Anthropics appears more certain than the essential inequality of all men in power and position, coupled with the real and essential equality of all men in means of enjoyment, and the free will and power all possess of improving their conditions or deteriorating it. But at the same time so important do I believe this inequality of ranks to be, not only to the existence but to the well-

being of crowded societies, that I scarcely think it would be possible to carry it to too great an extent, provided always that all ranks are equal in the eye of the law, and that no artificial restrictions are imposed to prevent the transition, upward and downwards, of all men, from one rank or position to those above or below it.

No man can possibly have the smallest influence on the time or place of his birth, or the condition of his parents at the time, nor over the characteristics he will receive from them. All this is absolute; beyond this his destiny is pretty much in his own hands—not externally, it is true, but in all that is really essential for his well-being and happiness.

PROGRESS.

This power of division of labour, though so essential to man, is not more important than that of aggregating and accumulating his experiences; or, in other words, progressing, without which the other would be of comparatively little avail—the one being, to use a mechanical expression, the statical, the other the dynamical form of the problem, taking in Anthropics the same position that space and time take in the physical sciences. The two together, in their full developement, are quite sufficient to distinguish man from the brutes.

With the inferior animals the law is simply this,—that the first created one is similar in every respect to the last born, and that within the limit of the species no progress has taken place, or is possible. Whether this refers to insects, fishes, birds, or mammalia, the law is the same. The first corals wrought as beautiful dwellings for themselves as those of the present day; the first spider was as good a weaver of snares; the first bee or ant was just as wise and ingenious as those we now look at; the first cod or salmon was of the same form and followed the same instincts as those now existing; so was the first crow or eagle, the first beaver, or lion, or elephant. There is no instance of any progress being observable in any animal in a state of nature, and no trace of any movement that could lead us to infer that any such thing was possible.

At the same time it cannot be denied, that in certain domestic animals that we are familiar with very considerable progress is observable, and it

was this that misled Lamarck* and his followers into the strange hypothesis that one species could be developed out of another. The fact, however, is, that man can impart to certain animals, when they are completely under his control, a certain portion of his own power of progress; and he has thus been able to develop a splendid race of horses out of a very inferior natural species, to breed the infinite variety of dogs he requires for his use and amusement out of one species, and to improve his sheep, cattle, poultry, &c. to the extent he has done, and which he may still continue, and perhaps extend to some species of animals we have not yet got sufficiently under our control. But let man's fostering hand be once removed, and all these animals return in a few generations to the wild and simple species out of which he had developed them. Our horses would become ill-conditioned galloways, our dogs a sort of gregarious wolves, and our sheep and oxen lankey and hairy wild cattle, and, if they were not exterminated by the more ferocious genera, remain as unchanged as the bison or zebra to the end of time.

Another form of this very untenable argument has recently become popular in this country, on the hypothesis that as the world gradually settled from chaos into its present form, the more perfectly organised species were developed out of those less so as the world became fitted for their reception.† If this prove any thing, however, it proves too much; for in that case, when it arrived at that state that the amphibia were developed out of the fishes, or the birds out of the amphibia, all the fishes or reptiles ought to have given birth to the more perfect kinds and perished themselves, as in the most notable instance when man was developed out of the monkeys, all female simiæ ought to have given birth to men, and their own race become consequently extinct; for it is scarcely conceivable that one pair only would be commissioned to give birth to the *genus homo*, while they and their congeners remained as they were, and, though the world has gradually been becoming more and more fit for man's residence, have never repeated the act, nor shewn the least tendency to become men, or more like men themselves. In truth, however, the theory cannot bring to its support one single fact, either observed or carefully inferred, for there is not one single recorded instance of any species ever giving birth to an individual of another species, even by a

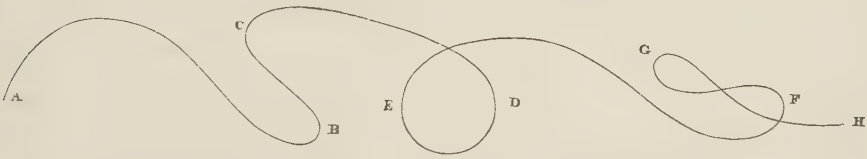
* Philosophie Zoologique: Paris, 1820.

† Vestiges of the Natural History of Creation. Lond. 1843.

monstrous birth or accident, nor do I know of a single direct analogy to support the hypothesis.

How the various species of animals came to appear successively on the globe we do not know, nor can we infer in the present state of our knowledge. It is one of the thousand facts in science of which we see the effect, but for the cause we can only say that there exists a Power whose presence we feel every where, but whose nature we cannot comprehend.

Still there are few facts in science better ascertained than the gradual succession of the more highly organised species of animals to those of simpler forms; that in the lowest strata of rocks we find only zoophytes and polyps; these are succeeded as we ascend by mollusks and articulates; a little above these come the fishes, then the saurians; to them succeed birds; then come the lower cetaceous and marsupial mammals; and on through the series to quadrumana and bimana. Not that these take place in the straight line in which some naturalists would force nature to move, but more probably in a curve as complicated as in the annexed diagram:—



where H is in advance of A, though after reaching B it may have returned to C; and in like manner, after passing D, it went back to E, and so on. Still on the whole the progress is certain, and in the progress of it many species died out when the atmosphere in which they existed became unsuited to the limited purposes for which they were called into existence, and this because they were incapable of either developement or progress; had they been capable of either, especially the latter, they might, and probably would have, lived on: but this was impossible, and they perished.

Last of all came man, unlike all other existing beings in many respects, but in none more so than in this, that he possessed in himself the power of progress, and, consequently, he was enabled to carry forward within the limit of his own species that developement which before his time was only possible by the appearance of successive creations, each more perfectly organised than its predecessor. Out of this arises a curious speculation, as to whether man, being the last-created animal,

must remain so ; and, so far as our lights go, I think it must be answered in the affirmative. So far as the other animals were concerned, the creation of man is a fact of which they could have no direct cognizance ; nor could they reason upon it. It was immaterial to them when they first saw man, whether he arrived from a neighbouring island or continent, as often happens nowadays, or whether he was created yesterday. It alters nothing in their position or mode of life, and they cannot transmit to their offspring a knowledge of the fact. With man, however, the case is widely different ; the introduction of a new or superior order of beings into the world would be instantly perceived, our free will and every relation of our life altered, and new elements introduced into every thing that concerns him, from the supplying of his daily wants to the adoration of his Creator. Nor does it appear to be necessary because of this new characteristic with which we are endowed, and which enables us to do what in all other instances it required a distinctly new species to effect. Not only, therefore, should we increase and multiply, but progress and perfect ourselves, for this is our true mission on the face of the globe ; and it is a glorious one, and the highest to which man can devote himself.

So far as our historical knowledge extends, the progress of man has been certain, though, as in the diagram on the last page, not regular nor uninterrupted. The intellectual developement of the Grecian era was very superior to that of the Egyptian that preceded it ; and though the civilisation which two thousand years ago encircled the Mediterranean sea was succeeded by a long period of darkness and barbarism, still we are even now further in advance of Greece than she was of Egypt. We know all that she knew, and we have added new worlds and new sciences to her limited stock ; and if we had only invented our printing-press and steam-engine, these have already been sufficient to accomplish what she never dreamed of ; and we do not see to what they may yet lead us. We are advancing rapidly, but whither we scarcely know, and without much thought, I fear, as to the guidance of our " wonder-winged car !"

Perhaps a little further on, and another long night of darkness may succeed to our bright day ; and again a dawn, starting from where we left off, may conduct man one step higher in the scale, and so on successive receding and advancing waves may carry him we cannot guess whither : but it must be forwards, for Progress is his destiny. Without

it his miserable doom would be that of the brutes ;—As first thou wert created, so shalt thou ever remain !

These two attributes of man will always, perhaps, form the basis of any true classification of Anthropics ; their importance, however, even with reference to classification, is so great, for the correct understanding of the subject, that it would be almost impossible to insist too strongly on them here. As the first is not only the means by which any thing in art is accomplished, but is, at the same time, the cause why there should not be only two or three arts or forms of art, but thousands, to suit the various idiosyncrasies to which they must adapt themselves to fulfil the purposes for which they were given to man, their aim may be, and perhaps should only be, one ; but to accomplish this object their forms must be as various as the intellects to which they address themselves. In like manner, I shall have frequent occasion of shewing that the only one means by which man ever did any thing great, either in the useful or fine arts, was by this aggregation of experiences. One man may be equal, either intellectually or bodily, to two or three of his fellow men ; but one can scarcely be equal to ten others, much less to a hundred or a thousand ; and at all times it will be found that a thousand little steps of a thousand little men, if in advance of one another, will surpass the stride of the greatest intellectual giant the world ever saw ; and it is only by steady perseverance onward that we can really hope to accomplish any thing great or worthy of ourselves, or which shall be a benefit to those that come after us.

SECTION VI.

ARMED with the two properties treated of in the last section, man, though more various in his powers than all the different species of all other classes of animals besides, is capable of becoming as one animal extending over the whole globe of the earth, living for an indefinite period of time, or, to speak less figuratively, one vast body politic working towards a definite aim over the whole earth, each region and each individual member performing his or its own definite part; and if the whole world were associated into one great family, it is not easy to see how society could decay or fall to pieces as it has hitherto done. Up to this time men have lived only in detached societies of a few hundreds of thousands, or millions, of individuals, and with a consequent average duration of life of not more than a thousand years; but the tendency certainly is to larger groups, and consequently longer periods, with, of course corresponding accessions of greatness and power.

These two powers, however, by themselves, would not effect this unless carried out by subordinate implements, which enable man to accomplish the various tasks he undertakes, and to accumulate the knowledge he acquires in performing them.

The fundamental definition of Anthropics being, that it is the science which treats of the properties which man possesses specially, and in contradistinction to the physical properties he has in common with the lower animals, and the actions he is able, through these properties, to exert in modifying and elaborating the various raw materials nature presents to him, in attempting any classification of other subjects it is requisite to bear in mind what these properties and their actions are; and the most simple mode will probably be found to be in taking, first, man's muscular action or power in all its myriad forms (Technics); then those developements of sense by which he does as much as by his muscles (*Æsthetics*); and, lastly, by his intellect, or, to confine this more correctly to its external action, to his power of speech and its developement (*Phonetics*).

The classification thus following the arrangement pointed out in

in Table C, which is the only natural one I can conceive. These three great classes of art, however, may be exercised by any one individual; and, though they cannot be developed without association, do not necessarily imply any such idea for their action. But there is a second great group, which I have, in consequence, called the Politic Arts, as they have reference only to bodies of men, and not to men as individuals. The first of these is Medicine, or medical police in its widest sense; the second, Morals, or moral police or government, or by whatever name it may be called; the third, Religion, or ecclesiastical policy or police. The first, including all that concerns man's bodily welfare as a member of a state; the second, his rights and duties as a citizen; and the third, his spiritual welfare, and his religious relations towards those that surround him. The first of these groups of arts, if cultivated with the sciences on which they are based, is quite sufficient for the culture and developement of man as an individual: but there are certain relations of men towards one another when living in societies, which require the second great group, which, however, does not in strictness belong to my present subject; and I shall therefore pass them over for the present, and merely return to say a few words in explanation of their position in the general scheme of Anthropic science, after more fully discussing the first of these, which includes all that is generally understood by the term Arts.

The arrangement, therefore, of all these classes will be as follows:—

- | | |
|---------------------------|--------------|
| 1. THE ANTHROPIC ARTS ARE | 1. Technic. |
| | 2. Æsthetic. |
| | 3. Phonetic. |
| 2. POLITIC ARTS ARE | 4. Medicine. |
| | 5. Morals. |
| | 6. Religion. |

The first class arises from the peculiarity that man, though he has all the limbs and organs of other animals, seldom uses them for any useful purpose without the intervention of a tool of some sort; all other animals are confined to what their own claws, teeth, or tails, can effect. The blow of man's hand is inferior in power to that of the paw of many animals, but the veriest savage can seize a club or stone, and redouble its force; he is inferior in swiftness or endurance to the horse or dog, but he enlists the one to accompany him, and mounts on the back of the

other, or makes him draw his car. Fire to all other animals is as useless and as noxious as the poison of the serpent; to man it becomes the most useful assistant, and the type of a vast class of powers that have enabled him to subdue the world. These, and others which I shall presently enumerate, give rise to the group of arts I have called *Technic*, or the power-accumulating and tool-using arts, meaning thereby all those by which man increases the slender powers which nature has engrafted on his body, and the application of these powers to supply his wants and exigencies. Armed with them man stands forth a very different animal from the rest of the *Bimana*; and though these powers are not attached to his body, they are not the less especially his and his property than if they were, and being detached are infinitely more useful: if they were attached all men must do the same thing, and those who did not would possess a vast quantity of unemployed and useless power; as it is, man may choose what tools he pleases and use them as he likes, and lay them aside when he no longer requires them.

Another group arises from a faculty even more important to man than this power of selecting and using tools—this is the gift of speech—which I need scarcely say is quite peculiar to the human species. Some birds, it is true, have a power of intonation, which enables them to imitate with tolerable accuracy an often-repeated sound, but none have in the smallest degree the perception of the use of the instrument they are taught to use, nor are they capable of appreciating what is meant by language. Most animals can express the emotions of joy, or sorrow, or anger, and such-like, either by vocal interjections or (what answers the purpose equally well) by gestures or signs; and so does, or at least so might, man; all his emotions may be expressed in mere inarticulate sounds, and so may all those instinctive feelings which he has in common with the lower animals. But language, properly so called, is the reflex of his intellect—can only exist as such with his intellectual power; and in the direct ratio in which the powers of his mind are superior to those of other living beings, is the complexity of his phonetic utterance superior to the interjectional expressions of the lower animals.

Between these two great groups I have placed a third, which I have named the *Æsthetic** arts, or those arising simply from the use of our

* I am aware of the inconvenience of using a word in a sense different from that in which it is usually understood. This is, however, so bad a word to express beauty in art—as it is usually employed to do—that I should be glad to see it disused for that

senses, as contradistinguished from the technic, of which the fundamental idea is power or amplification of muscular power, and the phonetic, which arise from the use of voice and its amplifications. These sentient arts, in their simple and natural state, we possess only in common with all the lower animals who have the same senses as ourselves; but even in their utilitarian forms they are with us capable of extension, of which the animals have no trace, except, however, the sense of sight, which the invention of the telescope and microscope has indefinitely extended: the others have scarcely been cultivated as they should have been; certainly not to the extent which they are capable of, nor even so far as the technic and phonetic arts have been. They, however, all possess the truly anthropic characteristic of capability of being refined into fine arts, of which none of the lower animals have a conception, and they most certainly occupy a place intermediate between the other two as a harmonising and connecting link of the utmost importance when used with them, but, except in the case of music, rarely rising into importance in themselves.

Those three groups may be arranged either thus,—

Technic,
Æsthetic,
Phonetic,

treating them, consequently, as distinct and separate groups,—a mode, however, that would lead to considerable repetition as each one was taken up; or thus,

Technic, Æsthetic, Phonetic,

reading them from left to right, as advances or refinements on those that preceded them, which is, perhaps, more philosophical, though not so distinct or clear. But, as in all cases where two distinct and opposite opinions

purpose; and it so perfectly expresses the group I have here employed it to designate that I cannot find another that expresses my meaning so perfectly. When using it to express beauty, I propose using it with an affix, as cal-æsthetic, as suggested by Dr. Whewell;* it then becomes correct as applied to music, house-painting, per-

fumery, gastronomy, or any other refinements of this group; in the same manner as I would use Euphonic for poetry, or the refinements of that class of art; or, as I would, if necessary, use Eu- or Calo-Technic, as applicable to building, or any of the refinements of that division of the subject.

* Philosophy of Inductive Sciences, vol. i. p. cxx.

may be maintained, the real truth lies in a diagonal compounded of the two, tending towards the horizontal or perpendicular direction, more or less, according as more or less force resides in the power tending that way. According to this view the classification would form five instead of three groups: thus,—

Technic	1
Technic, Æsthetic	2
Technic, Æsthetic, Phonetic	3
Æsthetic, Phonetic	4
Phonetic	5

and this, I am convinced, is the true mode—some arts being incapable of æsthetic elaboration, some compounded of the two first classes, some of all three, others having no technic elements; and lastly, the highest, phonetic, being entirely independent of either material or sentient forms for their expression. In theory, this is, I am convinced, not only true, but the truest philosophy; but when we try to reduce it to practice and tabulate the results, we are met by difficulties that will not be overcome till the province of each art is correctly defined, and a name invented for it that shall express its aim and position. Were I writing a classified encyclopædia, I might attempt this; as I am merely sketching from nature, the annexed table may, with all its defects, explain what I mean—which is all that is here required. Indeed, so little do I insist on their absolute correctness, that I have occasionally varied the arrangement between the text and the table, and between the different tables themselves; having done this for the sake of suggesting new ideas or combinations, and also to avoid any appearance of rigidity or assumption of perfection, to which these tables make no pretension whatever.

Be this as it may, on looking at the table it will be seen that there are certain technic arts at the head of the column ministering merely to man's comfort, and which are apparently neither capable of being joined to any æsthetic art, nor in strictness becoming fine arts. A little further down such arts as are engaged in supplying food and clothing become fine arts by being joined to æsthetic ones; and by their then gratifying the taste and sight, as well as being requisite for the sustenance or comfort of the body, they therefore belong to the second class. Building, in like manner, can hardly become a fine art in itself, but when its form and colours are such as to please the eye it becomes a fine art; and, moreover, when adorned with sculpture or painting, or even inscrip-

TABLE DEF.

SENSES.	PRIMARY ARTS OF TELURICULTURE AND AGRICULTURE.				TECHNIC ARTS.		ÆSTHETIC ARTS.		TECHNIC-ÆSTHETIC ^o FINE ARTS.	PHONETIC USEFUL ARTS.	PHONETIC-ÆSTHETIC- TIC FINE ARTS.	PHONETIC FINE ARTS.
	Ethers.	Minerals.	Vegetables.	Animals.	Useful.	Fine?	Useful.	Fine.				
FEELING.	Electricity. Light. Heat, &c. Coal.				Lighting. Heating. Ventilating. Cleaning.	Comfort.						
SMELL.			Scent.	Scent.	Odorising. Deodorising.		Compounding odours.	Perfumery.				
TASTE.	Air.		Food.	Food.	Cooking. Baking. Disfilling, &c.	Hunting. Fishing. Horticulture.	Preparing food.	Gastronomy.	Floriculture. Landscape garden- ing. Drapery. Embroidery.			
	Water.		Fibres.	Fibres. Feathers. Skins. Bones.	Spinning. Weaving. Felting. Tanning, &c.	Tailoring. Mantuanmaking.						
		Dyes.	Dyes.	Dyes.	Dyeing.		Weighing. Measuring.	Eumorphics.	Carving. Sealengraving, &c. Jewellery. Ceranique.	Imitations in relief. Phoneticsculp- ture in marble. Waxworks, &c.		
	Metals.	Colours.	Colours.		Hardware. Cutlery.	Ironmongery.	Forming.					
		Wood.			Carpentry.	Joinery. Upholstery.						
SEEING.	Earths.		Bark.		Pottery. Glass.	Optical Instru- ment-making.	Optics. Compounding colours.	Imitations on flat surfaces. Monochromatic.	Ornamental glass.	Phonetic paint- ing. Engraving, &c.		
					Brickmaking.	Building.	Painting.		Architectute. Eumorphic. Euchromatic. ? ?	Polychromatic.		
	Stones.				Stone-cutting.	Civil Engineer- ing. Naval ditto. Military ditto. Sonal Instru- ment-making.						
HEARING.	Salts.		Muscular Assistance.				Acoustics.	Music.	Dancing.	Imitation by sounds.	Singing.	
										Speech.	Poetry. Narrative, Dramatic, Lyric.	
INTELLECT.												Eloquence. Logical, Imaginative.

tions, it is capable of even a phonetic form of utterance ; and all the finest specimens of this art possess this characteristic, and, consequently belong to the third class. Poetry, on the contrary, does not appear to me capable of ever being considered as a technic art ; but it may, and generally does, become *Æsthetic* when music is used with it, as in singing, and indeed in all rhythmical poetry, though to a less degree ; and it consequently forms a type of the fourth class. Whereas, eloquence and all the highest intellectual utterances of man are neither technic nor *æsthetic*, but wholly and simply phonetic, and form therefore the type of the last or fifth class.

Viewed in this light, it will be seen that the term *æsthetic*, if applied to any of the arts concerned in procuring food, clothing, and shelter, when they do not attempt a phonetic utterance, is a correct enough expression to imply that union by which alone they can be raised into fine arts ; and if the word *cal-æsthetic* be used, it would be difficult to find a better ; but if applied to sculpture or painting, when they are used to express either narrative or poetry of any sort, the term, so far from rising with the art, degrades it, as it does even architecture when that attempts a phonetic mode of expression—for all the higher arts attempt something more than mere gratification of sense, and this is all that the word *æsthetic*, or even *cal-æsthetic*, can express. The highest aim of all is always an appeal to the intellect. Sense and sentient beauty may be, and in most art generally is, the vehicle through which the appeal is made ; but in the highest arts it is neither the aim nor the end, and phonetic, or euphonic, would be a better term to apply : but some loftier expression than even this ought to be used to express those artistic utterances which satisfy that craving for intellectual beauty which is their highest aim.

Though I am convinced that this is the only true mode of classifying these arts, I fear it is so complex that it will not be easily understood by those who are unfamiliar with the subject ; and to avoid the difficulty as far as possible, I have attempted to treat them as three distinct groups, assuming, with regard to the technic fine arts, the existence of the *æsthetic* element of beauty that refines each art into a fine one ; though I believe that when the subject is better understood, and the tabular arrangements which I have sketched more fully carried out, that this will be acknowledged to be the only mode of arriving at a correct elucidation of the subject.

TABLE D.

TECHNIC ARTS.

[illegible]

TECHNIC ARTS.

No attempt, at least no successful one, having hitherto been made to classify this group, it is not now an easy task, there being no nomenclature invented which is applicable to the purpose; and no scientific divisions have been recognised which can be taken as based on any well-understood basis. On the contrary, names have been applied perfectly at random, and they are now grouped as accident or local circumstances may have thrown them into juxtaposition; so that to classify them now as should be done would require not only a re-definition of old names or the invention of new ones, but a thorough dissection of the arts themselves and methodical re-arrangement of the materials. I think I see how this could be effected, but I am not of course about to attempt it here, nor do more than point out a few of such general affinities as are necessary for my purpose.

The first great division must always be to ascertain what powers man can enlist either to assist his own limited force, or to do what he is unequal to accomplish. (Powers.)

The second, to classify the tools, engines, or machines, by which his own or these acquired powers can be accumulated and directed, or generally applied to any useful purpose. (Applied Powers.)

The third. The first group of arts to which these powers are applied or those concerned in the production of the raw material. (Primary Arts.)

The fourth. That group of arts by which that raw material so obtained is made applicable to some useful purpose. (Applied Arts.)

And lastly. The refinements of these in the forms into which all the useful arts are capable of being elaborated, so as to afford gratification to that sense or appreciation of beauty of which man alone of all the animals possesses a trace. (Fine Arts.)

POWERS.

First class. The first and most obvious of those powers is, of course, man's own muscle, which he possesses in common with the inferior animals; and though in an inferior degree to many, taken in exhibition separately, yet taken altogether, I question much if man, even in this respect, is so inferior as he is generally supposed to be: but, be this as it may, he has that intellectual aptitude which enables him to increase his power indefinitely by the use of tools; and his muscles and limbs are peculiarly adapted, indeed are formed, to aid him in using them, so as at once to render all reasoning on the supposed inferiority of man absurd in the extreme.

The next class of power, that of the associated animals, is quite peculiar to man. If he have not the nose of the dog, or the swiftness of a horse, or the strength of a camel or elephant, he enlists all these animals to do his work, and they obey him, and forget their own natures to do him service. Other animals, it is true, live together in communities, either for the sake of mutual protection, to assist one another in procuring food, or for some such purpose. But this gregariousness exists only among animals of the same species, and no animal has ever yet been able to subdue another of a different race to do its bidding; nor is there any reason to suppose that, under any circumstances, any of the inferior animals could ever exert such a dominion for any well-defined or useful purpose. On the contrary, perfect and hopeless equality* is the characteristic as it is the curse of all associations of the lower animals; and their inability to remedy this is the principal cause why they must always remain as they are, and is one of the most striking differences between them and man, whose essential inequality has enabled him to effect so much.

Of all the elements, the earth (or, to speak more correctly, the solid bodies of the earth) is the only one that affords no power to man; though, by a strange tortuosity of reasoning, the powers of solids are almost the only ones our mechanical writers condescend to take notice of. The discovery of a power in a solid body would be equal to a discovery of a perpetual motion, which I need not say has not been done; but so far from the lever, inclined plane, pulley, &c., being powers, power is lost, by friction at least, if not by other causes, from their use; so that they are, in reality, machines for losing power, but practically they enable man, by multiplying time into space, or the contrary; and by the sacrifice of whichever of these two elements may be least valuable for his purpose to obtain an increase of the other, which enables him to effect what otherwise would be impossible. Thus a man, with the assistance of a lever, moving his hand, or power, through twenty feet (in, say, twenty seconds), may raise a solid body of one ton weight, through a height of one foot, which without some such tool he could not move at all; but, at the same time, it is true that he could without it move twenty bodies of one cwt. each through the same space in the same time; and, practically, it is probable that the loss by friction, and in raising the lever, would be greater in the first case

* *Liberté, égalité, fraternité*, would be an excellent and characteristic device of a herd of sheep, or wolves, or wild horses; but it is, to say the least of it, a very brutal one for a society of human beings.

than in the interruption of motion and loss of time in returning to each individual weight in the other. On the other hand, if power is of less value than time, it is easy to make a body move through twenty feet while one twenty times as heavy moves through one, and so on. But in all these, and ten thousand similar operations, no power is gained, but the contrary.

If the earth does not lend man an active power, it affords a passive one of sustaining ; in other words, a force of cohesion continually counteracting the active power of gravity. Under no circumstances, however, can I conceive it to be an active power, but it is an element of existence common to all animals and beings, and, therefore, having no particular place here.

Water, on the other hand, affords man an active power of considerable importance in the bodies of this element, which are continually falling from higher to lower levels on the surface of the earth, and which not only serve to turn water-wheels of various descriptions, but in locks to raise boats and ships to higher levels, which could scarcely be effected by other means ; and, lastly, by its passive powers of sustaining, which it possesses in common with, though to a less extent than solids, while its fluidity admits of bodies moving through it with less friction than has hitherto been accomplished on solids, the still waters of the earth have been of more use to man in transporting him and his merchandise to the various quarters of the globe, than ever the active powers of falling waters have been, or are likely to be.

The airs, too, in continuous motion on the surface of the globe, have been powers of infinite use hitherto to mankind, not only in turning windmills, but in the far more important office of driving ships with sails to all quarters of the globe, and enabling man to visit lands he hitherto would not have known without its assistance, and at the same time to enable him to carry on an interchange of commodities and commerce, which has altered the face of the globe and the destinies of mankind.

Both these powers, however, are likely to be superseded by fire, the fourth of the elements of the ancients, which in its developements is daily growing into importance, and bids fair to do all the real hard work of the world, till it is superseded by some more recondite chemical combination. But though it is only now that its real power and resources are being developed, it has always been most important to the human race, quite as much so as a new sense or new set of limbs, and, as I before said, it is man alone who has the smallest idea of its importance or uses.

A few of its most important uses, such as preparing our food and warming our dwellings, have been known to man from the remotest ages; and it appears that man's food was left inedible, and his body naked, for the simple purpose of forcing him to use this element, and become familiar with its application. For it is by far man's most useful servant: without it we never could have known the metals, or become acquainted with any of the immense range of the chemical arts, all of which might be grouped under this head; for though the definition that chemistry is "philosophy by fire" is not true in a scientific point of view, it is almost entirely so in a technical one. A new and most important use of this element has only recently been developed in its power of converting water into steam, which has placed at man's disposal a power greater and more tractable than any of the natural ones he had hitherto accumulated around him.

The separation of gases from solid bodies, or from one another, by heat, gives man the power of accumulating the lighter ones into balloons, by which he can fly, though, unfortunately, he has not yet learned to guide his flight, nor, consequently, to apply the power to any useful purpose. I question much, however, if the rarefaction of the atmosphere will not be found a more practically manageable power than the use of light gas; but the subject has not yet met the attention it deserves and requires.

Another important source of power in this department is that of explosive mixtures, such as gunpowder, gun-cotton, detonating powder, &c. By some strange fatality, these have hitherto been used almost exclusively for the purpose of murdering men and animals, except, perhaps, in blasting rocks or removing obstructions; but I feel convinced they might easily be applied for motive powers, or some more beneficial purpose.

Electricity is an infant power that promises, however, to play an important part in the history of man's further developement. At present expense is a bar to its application, as a motive power at least, but probably before long some more economical mode may be invented of accumulating and directing a power every where so prevalent throughout nature. As a chemical agent its powers have long been known and used, and latterly, as a phonetic art, it is extending its voice into every corner of the land.

Light, in its natural or wild state, is one of the most important agents to both men and animals; but man alone has been able to tame it to do him separate service. In the tropics, where the days are nearly of equal length, and man naturally rises with the dawn, its importance is

scarcely felt ; but such latitudes as those we live in would scarcely be habitable by man if he had not discovered, by the use of artificial lights, the means of equalising the length of the days, and, instead of a vague day, varying from eight to eighteen hours, to convert them practically into days of sixteen hours each : thus adding, probably, a fourth to the duration of his life, and more than that to the sphere of his practical utility.

In perfect strictness, I am not certain that this classification of the powers should not be reversed, so as to correspond with our arrangements of the sciences, and that we should take the imponderable powers first, the mineral next, and the animal ones last. Did the above pretend to be a perfect or complete enumeration of these powers, I should probably have adopted the latter mode ; but as it is merely an indication of what I mean by powers, I have not thought it worth while here, though in the table I have reversed the arrangements, it being of no consequence in any instance whether the tables are read from top to bottom, or from the bottom upwards, or whether they are arranged horizontally instead of vertically, as I attempted to shew with regard to Table B, the affinities and juxtaposition being the only things of importance, not the form.

APPLIED POWERS.

These powers, however, are evidently of little or no real use without the intervention of some sort of tool or engine for their accumulation or transmission, and, consequently, it is to this class we must next turn ; and did the nomenclature admit of it, it would be extremely useful to class them according to their complexity as tools, engines, and machines : thus, a hammer, or lever, would be a tool ; a water-wheel, a sail, a steam-engine, and other more complicated accumulators of powers, an engine ; and a mill, a plough, a loom, a ship, and so forth, would be called machines ; and this, I am convinced, is the true and correct meaning of those words, but they have been so carelessly and indiscriminately applied, that the use of the word engine or machine conveys no distinct idea of whether the thing spoken of is a mere implement of power, applicable to any or all machines, or the performer of some one useful operation, which I take to be the real distinction between the two. Thus a steam-engine may be applied to a sawing, or grinding, or spinning, or weaving machine. An hydraulic press is an engine that may be applied to a pressing or a stretching machine, or one for raising weights, or fifty other purposes ; a combination

of large and small wheels, or of pulleys, are engines that may be applied to pile-driving machines, levers, windlasses, and many other machines where a greater force is required than can be conveniently applied at a certain point, and where time is not important. The distinction, on the other hand, between tools and engines appears to me to be only one of degree, tools being merely the simplest forms of engines; but the distinction is nevertheless convenient, and from that cause I retain it.

The simplest and most typical tools are the lever and the inclined plane, both of which are merely implements for accumulating power by exchanging time for space, or *vice versú*; but they appear to me to be distinct tools, and different in their mode of action: both, by being made circular, may be made continuous, the former into a wheel and axle, the latter into a screw; and the lever may be still further complicated by using a series of toothed wheels with pinions on their axles. In like manner, one screw acting within another, or three or four, may indefinitely increase their power.

The pulley is another tool of very general application by which time may be converted into space, and *vice versú*; and, from its admitting of the employment of flexible cordage, and acting at considerable distances without difficulty in adapting itself to situations owing to this flexibility, it is one of the most useful tools we have: its weight too is inconsiderable, and the friction and rigidity of cordage, though great it must be confessed, do not at all counterbalance its other advantages. Its mode of action is, however, so different from that of the other two, that it must, I think, be always classed apart, though the fundamental principle is the same in all.

The constant force of gravity affords another means of accumulating power, for if we raise a body, no matter how slowly or in what manner, it falls not only with the force due to its height, but with the accumulated force due to its acceleration caused by the action of gravity at each instant during its fall. The latter characteristic entitles it, in strictness, to rank among the Powers; but it is scarcely sufficiently important to be thus enumerated. The stamper of an oil-mill and the ram of a pile-driving machine, are familiar examples of this action. A hammer, on the contrary, is generally formed first as a lever; it then has the accumulation of the force of gravity, and, as usually used, also the continuous action of muscular energy, and is thus enabled, after passing through three or four feet of space, to exercise—on the head of a nail, for instance—

an immense force, through the space of a quarter or half an inch ; while, on the other hand, a racket or bat, which is only another form of the same implement, may send a ball or stone through several hundred feet of space.

In the same manner, a wedge is only a double inclined plane, but it owes its practical utility to being used with a blow ; and its use consists in accumulating the power of successive blows, or when used to split elastic materials a new element of accumulation comes into play.

The elasticity of some materials affords another mode of accumulating power, of which the earliest and, perhaps, most familiar mode is the bow of the savage, who, by exerting a considerable force through four or five feet, can send an arrow through at least a hundred yards ; or, *per contra*, a strong spring may be so fixed as to exert as powerful a blow as a hammer through a very small space, even acting upwards, or, in other words, will exert any force that was accumulated in bending it.

And to whatever complexity of tools we ascend, we shall find the same mechanical effect ; thus, by working for a day any complication of toothed wheels and pinions, or a hydraulic press, a man may accumulate a power that will raise a weight or bend a spring that will crush any thing we know, or break the strongest cable ever forged ; and, on the contrary, a man may, in a few seconds, by winding up the spring of a watch, or weight of a clock, accumulate a power that will spread its action over weeks and months, and though feeble in proportion to the time employed, it obeys the one law of nature. But besides these mechanical tools in all their thousand and one forms, we have, for each of the powers above enumerated, a new set of almost equal variety and complexity. Water-wheels, air-wheels—sails, furnaces, boilers, retorts—guns, electric machines, and chemical apparatus in its myriad forms—all which are useful in enabling us to collect and accumulate the powers of nature, or the contrary, to modify and disperse them so as to suit our purposes, and generally to interchange time for space, and the contrary.

Any combination of two or more simple tools together, according to my derivation, makes an engine. A distinction of some practical use, though, perhaps, not very philosophical.

In this manner a crane or jack, a water or a wind-mill, become engines—irrespective of the uses to which they are applied. A sail, with its masts, yards, braces, &c., is also one, whether applied to a ship or a carriage, or any other purpose. An hydraulic press, as combined of levers,

plungers, pistons, cylinders, &c., can scarcely be called a tool; nor can a piece of artillery, with all its complexity of carriages and implements. The steam-engine has been properly denominated; and the electric engine will probably be so when invented; and following out this nomenclature, we ought to apply the same term to telescopes, microscopes, or any complex combination of lenses or reflectors for the purpose of increasing our optical powers. The one object of all these tools or engines being to add to the powers of our muscles or senses, without reference to the purposes to which we are to apply these acquired additions to our powers.

Machines are a further complication of the two former divisions, implying at the same time a reference to the use to which the former are to be applied, but not exactly the substance to be acted upon: thus, a grinding-mill may be one for grinding either corn or colours; a loom may be employed to weave either woollen cloth for coats, or silks for furniture, or flax for sails, and so on: but the latter can only be employed to weave, the former to grind, and generally the purpose to which the machine is to be applied is the principal characteristic by which I conceive all machines must be classified, or at least grouped. In what manner we arrange the groups so distinguished appears to me to be of very little consequence, and the one I have adopted is perhaps no better than half-a-dozen others I could point out myself.

1st. In the first group I would arrange all machines employed in overcoming the attraction of gravitation, either mechanically or chemically; the first class comprehending such as pumps and hydraulic machines, capstans, crabs, cranes, combinations of hydraulic presses, screws, &c. when so used; to the latter, balloons, explosive mixtures, and other like contrivances.

2d. Those employed in overcoming the attraction of cohesion, either mechanically or chemically. To the first of these subdivisions would belong all breaking, pounding, or grinding machines,—all sawing, boring, and planing ones,—all employed in digging, ploughing, harrowing, &c.,—in expressing oils and juices,—in cutting or turning woods and metals,—generally all saw-mills, flour, bark, or ore mills, and also explosive mixtures when used for these purposes.

In all these cases, what is sought to be obtained is merely smaller parts of the same substance, and not any alteration in the character of the substance itself, which is what is aimed at in the second subdivision, when the process is performed chemically, as in all those processes concerned in

extracting metals from ores, all the processes of fermenting, distilling, or extracting butter, gelatine, or such-like matters from animal substances, or indigo or starch from vegetables,—in the separation of earths, acids, salts, sulphur, or such-like, from the various compounds with which they are usually found in a state of nature.

3d. After the separating or decomposing machines come those employed in reconstructing the materials so obtained for our purpose, in like manner either mechanically or chemically,—to the first subdivision would belong all hammering and welding machines, all concerned in spinning and weaving, in felting, in paper-making, and such-like processes; to the second, such as those concerned in compounding gunpowder, glass, tanning, dyeing; or combining various metals to form alloys.

4th. There is still another class of machines among the most important to mankind, and which have in all ages occupied no small degree of his attention, those employed in transport. In this branch of the subject there are two principal difficulties to be looked at: first, the inequalities of the earth's surface, which require goods to be transferred from lower to higher levels; and secondly, the constant action of friction, which, generally speaking, is the most important of the two. They generally, however, act so completely together, that it is impossible to separate the one from the other,—at least on land; ships have no concern whatever with the former of those obstacles, as they always remain on the same mean level, though canal boats encounter it to nearly the same extent as land carriages. To overcome these difficulties two sets of machines have been invented, the one active, the other passive; the former consist of carriages of various sorts on sledges or wheels, and boats or ships; the second of roads, railroads, or canals. And the two might be so classified as to be considered separately were it worth while, but both are so identical in their purpose that I would prefer considering them together; though I am perfectly aware that there are nations that have carriages without roads and boats without canals; and others who have neither, but still employ only the power of their own muscles or that of other animals, with such tools as saddles or pack-saddles, and other simple means of placing and retaining the load on the back of the beast: but with civilised man the case is widely different, and so important to him is this power of transport that there is scarcely any power or tool or engine that he has not used, and often in its most complicated forms, to make up his locomotive machines.

Perhaps the best mode of classifying them would be,—as balloons and flying-machines, when they exist for those purposes ; as boats, or vessels small enough to be impelled by animal power, and as sailing and steaming vessels ; as animal-carriages and steam-carriages, wind having never been successfully employed for these purposes on shore, and steam having only lately been applied to this purpose, those drawn on canals by animals have hitherto been almost the only ones known, but a revolution is taking place which may soon alter this. Taking them according to their invention or degree of perfection, they might be classed,—as those without wheels ; those with these most important appendages, which seem to have been invented in a very early age ; and lastly, those with springs, which come next in importance to wheels, though their invention is comparatively modern.

To this second division of this subject belong the sea, the best but most unimprovable of highways, with its harbours, docks, &c. ; canals, with their basins, reservoirs, locks, bridges, aqueducts, &c. ; roads, with their bridges and pavements ; and railroads, with their viaducts, stations, and thousand and one contrivances.

5th. A last but most important class of machines are those employed for *murder*, which may likewise be divided into mechanical and chemical instruments for this purpose. The ancients only possessed swords, spears, bows, catapults, and such-like mechanical modes of killing either men or beasts. We have added gunpowder, a chemical agent, which has nearly superseded the mechanical means previously used, which now may be classed more as defensive than offensive weapons. Detonating powder, gun-cotton, and some others, should, perhaps, be added to our rather scanty list of chemical agents for this praiseworthy purpose ; and modern science will, no doubt, add more when seriously called on for them.

As in the instances of classification pointed out before, we may either read this division of Tools, Engines, and Machines, horizontally or vertically, as may be found most convenient ; but the true philosophical mode will be the diagonal one, thus,—

Tools	1
Tools—Engines	2
Tools—Engines—Machines	3
Engines—Machines	4
Machines	5

Thus dividing them into five classes instead of three, though, after what has been said above in classifying according to this scheme the Technic,

Æsthetic, and Phonetic Arts, it will not be necessary to go more into this subject in this place, as the matter is not of sufficient importance with reference to the purposes of this work.

PRIMARY ARTS.

Assisted by these Powers and armed with these Tools, man goes forth on his mission to conquer and cultivate the world, and to practise those Technic Arts which form the next great division of our subject. These, however, are so various, and their boundaries hitherto so ill defined, that their arrangement is no easy matter: the leading features by which they must be classified, however, are sufficiently distinct and intelligible; and though I am far from thinking that the mode I have adopted is the only one possible, or indeed even supposing it the one, that I have carried it to that extent of which I see it capable. It is, however, *a* classification which includes all the objects classified in an intelligible form, and if it does not meet all their affinities and differences, it does at least the greater part of them.

I have pointed out above the classification of these arts into three groups,—the Primary and Applied Arts; and their refinements, commonly called the Fine Arts.

These divisions are, I am perfectly aware, neither absolute nor capable of any very positive definition, but, like the division into Tools, Engines, and Machines, are to be considered more as degrees of comparison, intelligible as types, though not distinguishable as species, as it is possible to classify many of the primary arts as at once belonging also to the second class; and in no instance is it possible to draw a line between the useful and fine arts, as in all instances they merge into one another by almost insensible degrees; and to different persons and in different ages the line will appear to be carried backwards or forwards, according to the greater or less proficiency in the art, or the higher or lower standard adopted by each person or his age.

If this is conceded, the classification of the primary arts can never be a matter of great difficulty, for they must follow whatever arrangement we adopt for the physical sciences; and if we arrange the sciences as I have done, we must classify these—first, as those occupied in producing Ethers; next, as those concerned with the production of Mineral, then of Vegetable, and, lastly, of those Animal substances which man requires for his purposes. The two latter are generally grouped under the head of Agriculture or the Agricultural Arts, taken in their widest sense. Those arts concerned in the

production of Minerals might, in like manner, be called Telluriculture. The Imponderables, however, belong as much to one class as the other ; indeed, the only difficulty is with regard to them, as these might, in most instances, be referred to the second class of arts—for whether it be electricity, light, or heat we require—we must first procure the metals, coals, or vegetable and animal substances out of which these are to be obtained ; and, in nine cases out of ten, they come directly into use under the heads of the arts of warming, lighting, &c.

Be this as it may, the classification proceeds on the basis, that to every science there is attached an art, or, in other words, that all our scientific knowledge is capable of being elaborated to our use. At present, of course, there are wide gaps in the artistic classification compared with the scientific : the former proceeding, *per saltum*, over vast groups of phenomena ; and by far the greater part of the mineral, vegetable, and animal productions we see around us are quite uncultivated and useless to man. At the same time, there are none that may not become so ; but, even if the gap remain, it will not alter the outline, which is all that is here required.

Viewed in this light, a primary art is nothing more than the means which man employs to procure and accumulate those natural productions which he requires, and the modifications he produces in them while this process is going on, so as to render them more fitted for his purposes than they would be if collected quite in a state of nature. This last characteristic applies, of course, more to the vegetable and animal products than to the minerals. The latter man must collect as he finds them ; but by domestication and culture he has done much, and may do more, to modify the natural state of the former classes.

If this be understood, it is of little consequence whether we consider, first, the arts concerned in the production of metals, or earths, or gases ; or those concerned in the production of woods, or cereals, or vegetables. On the whole I am inclined to think the one I have adopted in the table is the most convenient ; but I would be ready to adopt any other that might be pointed out. But the question should not be argued here but in a scientific point of view ; and whenever a good natural classification of minerals and vegetables is thoroughly established, it ought most certainly to be followed in classifying these arts.

As in all other instances of classification, it is of no importance whether the table is read from top to bottom or arranged horizontally : to shew how this might be done with regard to primary arts, I have arranged them in

this manner in Table D E F, a mode which I am inclined to think will generally be found, on the whole, the most convenient, as it admits of the secondary, or useful, and fine arts following in immediate juxtaposition to their primaries. Thus, water, vegetables, and animal food, are followed by cookery and gastronomy; and all classes of fibres by spinning and weaving; and these by embroidery or any fine art that exists, or may exist, in conjunction with them. And if that table were carefully and philosophically carried out, a treatise on the whole subject of the technic arts could perhaps be better written, and with fewer repetitions, according to this scheme, than according to any other. To preserve, however, that distinctness which I think so essential in broaching a new subject, I have adhered to what I conceived to be the simpler mode first pointed out.

APPLIED ARTS.

Unless arranged according to this mode, the second great division is unfortunately by no means so easily classified as the last; owing principally to its greater complexity, but also to the extreme indefiniteness of the boundaries of art. For, in the first place, there is almost no useful art that does not apply to, or use, both mineral and vegetable, or vegetable and animal substances. If we appropriated the arts to each of them, we should be led into infinite repetitions. As for instance, cookery would be divided as applied first to vegetable, then as to animal substances; spinning and weaving would have the same unmeaning distinctions; building would be classified as stone and brick; and in another part we should find wood-building as a separate art, and be obliged to class a building as it happened to have more mineral or vegetable substances in its composition. To avoid this inconvenience, I have superadded the following distinctions as groups, without attempting to define very minutely their limits, and it appears to me, that such a scheme may be improved and modified so as to answer every purpose to which a classification of these arts can be applied, either by interpolating such groups as I have omitted, or altering in some respects the order of succession I have adopted:—

1. Those arts concerned in the production of light, heat, air, &c.
2. _____ food.
3. _____ clothing.
4. _____ furniture and utensils.
5. _____ shelter.
6. _____ transport (and exchanging—commerce).
7. _____ defence (war).

In the first class may be comprehended all those arts concerned in the production of heat, light, and electricity, for man's purposes or convenience ; and to these should, perhaps, be added ventilation and water-works.

Food and clothing there can be no great difficulty about as types, but it is impossible to insist on the arts I have grouped under these heads as strictly belonging to either class ; as, for instance, spinning and weaving certainly in nine cases out of ten may be called clothing arts : but we weave sails for our ships, and spin ropes and cables for them while cables, on the other hand, are oftener of iron than of fibre. The carpets and curtains of our houses can scarcely be called clothing, much less the canvass of which a tent is composed, tent-building being, in absolute strictness, a branch of architecture. But these are distinctions I believe to be inseparable from any classification we may adopt ; at least, though I have tried fifty, I know of none that does not either separate arts which certainly ought to be placed in juxtaposition, or, on the contrary, group into one class those that should be separated. If any one can propose an arrangement that avoids these anomalies he will render a service to the science of Anthropics ; but I confess I despair of its being possible, and, in the meantime, I think the one I have adopted sufficiently natural to admit of its being written consecutively, giving a fair description of all the useful arts without much repetition, or any violence to the natural affinities of the arts.

The fourth class is the most comprehensive of the whole, as it comprehends a vast number of miscellaneous manufactures in metals, earth, and wood, but the group can be tolerably well defined, sufficiently so at least to prevent any confusion ; and with a subdivision into these three classes, the arrangement of them has been tolerably well made out in various treatises already published regarding them, and an inspection of the titles is sufficient to shew what is meant.

Under the fifth class, Shelter, I include all buildings except those in the seventh class, though it is true that mausolea, monuments, trophies, triumphal arches, and such-like, scarcely come under such a definition. Still ninety-nine buildings in a hundred are certainly meant for this purpose ; and even where they do not do so, in strictness they are almost always copies, more or less remote, of buildings meant for this primitive purpose, and include the idea of shelter in their forms at least.

Without the sixth class nothing could be done by man. As I mentioned before, one of the most important class of machines which man had

invented and perfected was that of the carriages and vessels by which that transport was to be effected ; and the roads and railroads, with their bridges and viaducts, and canals and harbours, by which they were to be used and made available. In this, as in every other instance, in writing a monography of any one art, we must write it according to these tables, not from top to bottom, but from left to right, describing first the tools and machines employed in the art, then the raw material and purposes of the art, and, lastly, the art itself ; but in considering the technic arts as a whole, as I am now doing, there occurs frequently a vast interval between the tool and its use. The same is true of the next, or seventh class, which comes under the same category as the above (the two generally being grouped), and as civil and military engineering ; the abstract theory of both belonging to the art of Government, under the names of Political Economy and International Polity : but the material carrying out of what is there shewn to be best is certainly a material technic art, which I cannot find any other more appropriate place for than the one I have assigned to them.

FINE ARTS.

Whatever arrangement we adopt for these useful arts, there can be no doubt but that the fine arts must follow the same classification, in the same manner that the primary arts followed that of the sciences out of which they were elaborated, every useful art being capable of being elaborated into a fine art, though with us so few of them have undergone this process that the truth of the assertion is not immediately apparent. Nor is the converse, that all fine arts are nothing more than refinements of useful arts. This fact we have also lost sight of, because with us some of the latter class are mere imitations of true art, which we repeat and copy, without even thinking, and certainly often without knowing, either what we are doing or why we do it.

The existence of the fine arts depends, if I mistake not, on a great primary law of human nature, which, as far as the arts are concerned, may be stated thus,—That to every function of which man is capable there is attached a use, and that function is necessary for his existence, or for performing that part in the great drama of the world for which he was created ; while, to urge him to the performance of this, severe pains and penalties are attached to the non-performance which he cannot escape, such as hunger, cold, misery, and disease. This man has in com-

mon with the lower animals ; none can rest in the world, but all are goaded on to the use of their faculties, both of body and mind, or must take the alternative of pain, disease, and death.

But, on the other hand, there is attached to the exercise of every function a certain gratification or inducement to its exercise, which, properly cultivated, converts that which was a task and burden into a source of pleasure and enjoyment ; and with man, at least, the inducement that attracts him to the healthful exercise of his faculties may in most cases be greater than the force that goads him to it. With the lower animals this is scarcely the case, except in the sexual appetites, or such, perhaps, as eating, drinking, sleeping, and the lowest class of emotions ; but in man it is attached to every thing, and is greatest in the highest intellectual exercises, where the goading stimulus that forces men and animals to corporeal exertion is almost entirely wanting, and the attraction of pleasure almost the only inducement to their exercise.

It would be in vain to attempt to enumerate the various names that have been given to this attraction or inducement, but the most common and most generic name is that of "beauty," or "sense of beauty," which means really nothing more than the gratification which we are able to extract out of every useful function we perform, and which is necessarily attached to the proper performance of all these functions. And it is thus that all the useful arts are capable of becoming fine arts, or, in other words, that beside ministering to our necessities they may become sources of pleasure or gratification, of course in various degrees, for some only minister to our sensual appetites, while others tax to the utmost our greatest intellectual powers ; and thus, though we cannot help applying the term fine art to gastronomy as well as to lyric poetry, the one is as superior to the other as an oak-tree is to a wild brier, but both belong to the class of vegetables, and possess properties in common whose existence cannot be disputed.

We must not forget, however, that no two men are alike, and that all are called upon to perform different parts in the drama of life ; and it would be unjust to refuse to the lower and humbler class of intellects those gratifications which are vouchsafed to the higher ; and if no man was to see or enjoy beauty but those who were familiar with the highest flights of art or poetry, few would understand what the term meant. For the lowest as well as the highest this gratification is available—all who seek may find it. The higher the nobler, but however high the noblest intellect may soar, there is still beyond a beauty man has not yet seen, but

by purity and sedulous cultivation of all his nobler attributes to which he may yet reach ; while no intellect is so humble that beauty may not creep into it, if only through the song of the bird, the beauty of a landscape, or the glow of a setting sun ; and every man can appreciate beauty in his own trade or profession, or in his own immediate relations of life.

Were I attempting to follow out to the letter my own principles of classification, I am aware that I ought in this place to introduce the æsthetic ones, as I have done in Table D E F ; as I believe it is impossible to elaborate most of those arts which I have called technic fine arts out of their utilitarian primaries, without introducing the æsthetic element : but, with the view of presenting the matter in its simplest form, I have here been contented to assume the existence of the æsthetic element, and to place in close juxtaposition to each of the useful arts its refinement, ascribing its elaboration not to each individual sense, as in strictness should be done, but to the influence of this “sense of beauty,” which is a generic term usually applied to this function, and whose meaning is generally enough understood when so used. When speaking of *Æsthetics*, I shall have occasion to point out a few of the species into which this comprehensive genus may be divided ; but it does not seem necessary to complicate the subject by a reference to them in this place. The principle thing which is here attempted to be shewn being that all common and useful things may be refined into objects of beauty, and, though common, that all that is beautiful or high in art is merely an elaboration and refinement of what is fundamentally a useful and a necessary art—of course, in various degrees. But from the lowest sensual to the highest intellectual art the principle is one and the same.

This will be made clearer as we proceed. At present I am merely sketching the outline of what this work is intended to fill up, and must leave it, therefore, almost as a mere assertion, though I think that all who reflect upon it may see the bearing of the argument ; but perhaps an instance may make it clearer : no function can be more utilitarian than walking, or running, or even riding, yet few afford more gratification to many when properly used. With boys or savages mere exercise of the limbs and lungs is almost the only enjoyment they are capable of ; and if boys were to write unaffected treatises on the fine arts, I suspect cricket, or football, or fives, or some such, are the only ones they would admit as coming within that category. And even with the best class of our grown-up men, hunting and shooting, which are little more than this,

often rank as their best amusement and highest gratification, taking, in reality, the place of the higher fine arts.

As children grow up, however, to man's estate or womanhood, or as nations advance in civilisation, mere motion and noise no longer afford that gratification that they did, but a higher class of art is required; and rhythmical sound and rhythmical motion, commonly called music and dancing, or other arts of this grade, supply their place. To the full-grown intellect, however, or to the perfectly civilised people, even these soon cease to be objects of importance, and their place is supplied by those refinements of the highest intellectual efforts which the human mind is capable of reaching,—as poetry, or painting and sculpture, or architecture, which alone grown-up men admit within that category; and they certainly are those most entitled to the distinction, but not to the exclusion of the others. Few minds are capable of grasping and familiarising themselves with these, so as to make their enjoyment a motive of ambition, or so that their influence should be felt on the motives or relations of a man's life.

But the lower class of minds cannot partake of the lofty aspirations vouchsafed to the higher ones; and if they cannot reach the cloud-capped pinnacle of the lofty alps, there are beauties in the flowery meadow which may be easily got at and peacefully enjoyed; and though they who are familiar with better things may despise these, it would be difficult to say which contribute most to man's happiness.

Viewed in this light, it will be understood why I have placed in a column parallel to the useful arts one of the fine arts, and tried to find names by which I might supply, at least, the place of those whose substance was, unfortunately, absent with us; though in doing this I am aware of the ridicule that attaches itself inevitably to placing there many arts that with us have no title whatever to the name: but it does not follow from this that they might not establish their title, and, let us hope, may yet do so.

At the head of the column stand the imponderables, and it is not easy to see how they can be elevated into fine arts in themselves at least, though coloured light is one of the great elements of other arts. Still, even in their pure state, it may be said that a perfectly lighted, warmed, and ventilated apartment, if not an object of fine art, is, at least, a most agreeable adjunct to many, and a most desirable object to attain, and one certainly capable of affording the most pleasing sensations.

In like manner, after the useful arts of cooking, baking, and distilling,

or brewing, I have placed gastronomy, confectionary, and wine-making; and a few more names might be added, all which are æsthetic refinements of useful and necessary arts, and, if my definition be at all correct, are fully entitled to the distinction of fine arts. But shall I dare to call them so? and do I not expose the whole system to ridicule by placing them in this column? Perhaps I do: but I should be only too glad if the ridicule were sincere, and directed to the reality as well as to the system. But if mankind were polled on the question as to whether they would give up the pleasures of good eating and drinking, or those they derive from the higher arts of poetry, painting, or sculpture, I fear an overwhelming majority would register their vote against—or, at all events, put in a black ball for—the higher class; and would willingly consent never to look at a work of high art again, rather than content themselves with the simple foods and drinks which are all nature requires for healthful sustenance; and while this is so, Gastronomy must rank as a more important, if not a higher fine art, than those usually so designated. I wish it were otherwise: but what prospect is there of its being so in this country? There is, certainly, more money spent on this group of fine arts than on any of the higher ones; and a man who gives good dinners is one whose acquaintance is much more sought after, than one who has only a gallery of fine paintings, or who is remarkable himself for his knowledge or appreciation of a higher class of beauty.

In like manner I feel thoroughly ashamed of the arts of the tailor and mantua-maker, which I have placed, for want of better, in the place that ought to be occupied by the fine arts they represent. For in this age men have ceased to think about dress as an ornament, and it has, in consequence, become a mere matter of conventional convenience; and though women spend half their lives in thinking of and working at nothing else, it would be difficult to discover what object they had in view, except getting rid of the greatest possible amount of cash, and trying practically to carry out the precepts of the second commandment by making themselves as unlike as possible “any thing in heaven above, or in the earth beneath, or in the water under the earth;” and, it must be confessed, with wonderful success, besides making their costume as ungraceful and ridiculous as the case will admit of.

It was not so, however, with the Greeks, as we know from their sculpture and paintings; and, what is more to our present purpose, it may be remembered that the literal dressing of the great statues of

Minerva Parthenon and Jupiter Olympus cost more money, and employed more talent of a higher class, than all the marble sculptures of the temples themselves. Our painters and sculptors have felt this, and tried to remedy it in their works, but in vain. When they do so, they affect to copy the works of the Greeks or Italians; but in copying what they neither understand nor feel, their attempt has ended in an inane affectation of art which makes no appeal to our sympathies. The reform, if ever it take place, must begin from living men and women, not by attempting to imitate dead statues or paintings.

Among the agricultural arts, however, there are two—Floriculture and Landscape Gardening—which as fine arts were unknown to the ancients, or in the middle ages, and which, consequently, have with us escaped the affectation of copying, which has destroyed so many of our other arts, and been cultivated by us solely for the beauty they are capable of producing; and no Englishman will, I think, deny their beauty, and few remain untouched by their appeal to his sympathies. For myself, I do not know of a single nobleman or gentleman's country seat in England where the flower-garden or the park is not a more beautiful object, and a higher work of art, than the house itself, though few of these mansions are without architectural pretensions, and in many of them convenience and appropriateness have been entirely sacrificed merely to obtain what was supposed to constitute an artistic effect. Bacon seems to have been of this opinion when he wrote in his forty-seventh Essay,—“God Almighty first planted a garden, and indeed it is the purest of human pleasures, without which buildings and palaces are but gross handiworks; and a man shall ever see that when ages grow to civility and elegance, men come to build stately sooner than to garden finely, as if gardening were the greater perfection.” Which is perhaps true, as far as it goes; but gardens want that durability which gives to buildings so much importance, and are incapable of attracting to themselves the higher phonetic utterance of sculpture and painting, and the other arts, which give architecture its highest value. Mere technic architecture, as Bacon only knew it, and as we even to this day practise it, is indeed inferior to this art.

It will not do to dispute the justice of the comparison by saying the one is nature and the other art, for the materials of both are nature, but it is man's hand that gives them their artistic value. The kitchen-garden and the jungle are not beautiful objects in themselves. The forest, from its size, may possess the same claim to beauty that the Pyramids of Egypt

do, but the smallest temple of Greece is a nobler work of art than these immense masses of stone.

Every where Nature offers us her materials, and every where we may extract beauty out of them; and if we were to cultivate all the arts with the same singleness of purpose that we have applied to these two, they would not stand out in the classification as they now do. But if any Englishman in a foreign land thinks of what he left that is most beautiful in his native country, and what he feels most proud of, it will not be certainly our painting or sculpture, nor our architecture, nor any thing usually called fine art; but between the nobleman's park and the little cottage garden, with its gay flowers, he will recollect numerous scenes and objects of beauty that, if he have any artistic sympathies, will not soon be banished from his memory.

In another class, arising out of Metallurgy, come hardware and cutlery—or, more generally, manufactures in metal, a most extensive class of useful arts, which certainly are capable of almost infinite artistic cultivation; among them, however, jewellery is almost the only branch cultivated exclusively as a fine art, and if more attention and a higher class of intellect were devoted to its culture, it might take a very high rank, and, indeed, has done so in former days. Judging from the few specimens that have come down to us from the times of the Greeks and Etruscans, they bestowed great attention to the cultivation of this art; and there are a beauty and elegance about the objects of this class preserved in our museums that cannot but afford the highest gratification to the cultivated mind.

As late, however, as the times of Benvenuto Cellini the art was cultivated by him and his contemporaries to an extent, and for higher purposes, than we now dream of, and with eminent success, as all know who are familiar with the arts of his age. At present its cultivation is handed over to shopkeepers and journeymen goldsmiths, and, like all arts similarly situated, it has become a mere manufacture, elegant, it must be confessed, in some of its productions, but wholly devoid of any pretensions to high art.

Knives and forks certainly do not appear capable of much elevation in the scale, still, by the addition of appropriate and well-executed ornaments, even they may become objects of no despicable elegance; and coffee-pots, tea-pots, urns, and all that come under the head of "*Vaisselle*," may be made objects of beauty by their forms, whether the material be tin or

pewter, or gold or silver; and indeed there are few arts through which beauty can be made more easily available to all classes than this. An elegant form is just as cheap as one utterly devoid of grace, and few, I think, are aware how beautiful these objects may be made, nor, till they try, will they be aware how much thought and contrivance success in designing in this art requires; and then, how still more difficult it is to find workmen capable of executing the design when made.

Ironmongery is also an art that may be made to convert a great number of useful objects, that are continually before our eyes, into objects of very considerable beauty and elegance; or may leave them, as is too generally done, either mere tools, or only tawdry copies of objects with which they have no real affinity.

In the next division, glass and porcelain, even with us, have become objects of considerable art, but in these we must go back to Venice in the middle ages, and to our old cathedrals, to see what can be done in them. Even without reference to the figures painted on them, the mosaic arrangement of coloured glass in windows is often singularly beautiful, and was, and may become again, one of the most powerful adjuncts employed in elevating architecture; and from our superior mechanical means, there are few arts in which we could more easily surpass the works of the middle ages. But, to do this, it must be taken out of the hands of the journeymen glass-blowers, men on a guinea a-week with a wife and six children; and a master-shopkeeper, only anxious to make the most money out of his contract, will not easily elevate this, or any other art, to a very high rank in the scale. To know what can be done with pottery we must go back to the Greeks, whose vases, without reference to the figures painted on them, are often objects of the highest art, far more so than a Corinthian capital, or any of the details of architecture; but even they did not carry this art to the extent we could. Their material was often coarse and bad, the execution careless, and the drawing, both of the details and figures, as bad as bad can be: their one merit seems to consist in the elegance of feeling that guided the hand that formed them. The artists were gentlemen in feeling if not in station, and the production of a refined mind must always possess a charm which a vulgar mind never can impart to any work.

The upholstery of the ancients has perished; but we have many examples, in the furniture of our cathedrals and abbeys of the middle ages, of the elegance to which chests, presses, and the commonest articles

of use may be brought by a little attention and study. At present the art is entirely in the hands of shopkeepers, and of course has no right to the rank I have assigned it. Yet there are instances, even in this country, and at the present day, where one presiding mind, under the guidance of good taste, has taken the requisite trouble to elaborate the whole design; where the carpets, curtains, and furniture, have been grouped into a whole of no small beauty and elegance. It is not a high art, but it is one capable of a very considerable degree of refinement; and, from the circumstance of its being an absolutely necessary one, and its objects always present, it is capable of exercising no small degree of influence on the tone of mind of the inmates of a house, according as refinement or vulgarity may predominate in the mode in which the upholstery has been executed.

Almost all the primary arts are necessary to contribute some portion, at least, of the raw materials required to make up the useful art of building, if the word is understood in its widest sense; and out of this art arises the fine art Architecture, but by such insensible gradations that I defy any one to draw the line between them, or to say whether certain edifices should be classed as mere utilitarian buildings, or might not claim to the higher rank of architectural objects. There are, of course, many buildings devoid of ornament, and erected with no object but use, as warehouses or the common class of dwellings in this country, which assuredly lay no claim to higher art; but it is difficult to say how much ornament or what change in the disposition might not raise them into the higher class: often a few dressings to the windows, and grouping these slightly together, with a very slight change in the disposition of the solid parts of the edifice, if done with judgment and taste, may make an object of fine art out of what before was the object of the most common-place utilitarianism. Still the line can never be very strictly drawn, and no two men may be able to agree as to the claims of some transition specimens, if I may so call them. In different ages and different countries, what at one time or place would be considered an object of high art may be looked on as very common-place at another, and *vice versâ*. Still on all hands it is admitted that architecture is, and always has been, ranked as a fine art; and if any one will take the pains to analyse in his own mind the difference between a mere useful building and an architectural one, and apply the same reasoning to those arts enumerated above, which I have classed as fine arts, I think he will at

once see that the same reasoning applies to all, and that, if ornamental building is a fine art, so is ornamental gardening, and iron, earthen, and wooden works, when applied to ornamental purposes.

At the same time it must be borne in mind that Architecture has always possessed some adventitious advantages, which apply to the others only in a less degree.

In the first place, it has size, which gives it an importance most of the others do not possess; and though this is not in itself an element of beauty, it is an important adjunct in conveying to the mind a powerful impression, and enables many objects to command attention and respect which without it would be very contemptible. Nothing can well be more absurd, or convey less of the impression of the original, than a model of a pyramid; but those of Egypt have always, and with justice, been considered among the wonders of the world.

It possesses durability beyond almost any other of man's works—except, perhaps, the lay of the poet—and in this respect comes before us with a sort of pseudo-eternity, speaking to us of past times and people who have left no other record of their existence, and telling its tale with a distinctness and reality which, to my mind at least, no other art can match.

But perhaps its greatest claim to our admiration arises from the circumstance of its having been always used, and by almost all nations, as a mode of worship; for of all the arts it is the one most peculiarly dedicated to God. Had it been merely employed to furnish us with shelter, or to supply us with storehouses or factories, or such-like uses, it probably would for ever have remained lower in the scale than the arts of the workers in metal or wood, or of the potter or glass-blower; but when it was furnished with the loftier aim of building a house for God, and nations laboured and revenues of kingdoms were devoted to make it worthy of this high distinction, not in one country only but among all the nations of the earth, and not in one age only but labouring to perfect the art through a long series of ages, it is little wonder that she soon outstripped her humbler and more neglected sisters, and with her size and durability now stands before us with a far different aspect from theirs, and in most minds has been able to arrogate to herself alone the title of a fine art, which hitherto, with us at least, has been denied to all the others. But I cannot assign one good reason for elevating the one and depressing the other, except such as arises from

our ignorance of what they should be. Still, as at present constituted, there is no doubt that Architecture is the typical fine art among those that I have grouped in the technic class, and by far the most important and perfect.

Were it, however, only a technic art, Architecture would not deserve the place I have assigned to it in the following pages. But, besides the advantages enumerated above, it possesses the still greater one of attracting to itself, and indeed requiring for its perfect elaboration, two of the most important æsthetic arts, eumorphics and euchromatics, and also the important phonetic arts of painting and sculpture; so that a perfect building, such as the Parthenon or a mediæval cathedral, becomes the exponent of the principal technic, æsthetic, and phonetic arts of the age in which they were erected. I am aware that it is possible to group even a greater number of arts in one whole, and arts, too, of a higher class than those required to make a perfect building. In the drama of the Greeks, for instance, this was done; but then the greater part of the arts used were ephemeral, and passed away with the representation. Architecture alone has hitherto been able to attract to itself so many arts in a permanent form, and to transmit them to posterity.

It is for these reasons, as well as for others that will appear in the sequel, that I have chosen it as the web on which to embroider the story of the following pages.

It is usual to divide Architecture into some such groups as civil, municipal, and ecclesiastical architecture. The first comprehending dwellings of all classes; the second, all edifices required by man's wants as living in communities; the last those dedicated to religious purposes: and such a division seems not only intelligible but appropriate, but it excludes a whole class which are generally considered by us as something quite distinct, and are handed over to another profession, that of the Civil Engineers, who are not considered as artists, nor are their works ever looked up to as objects of fine art; nor, in truth, do they much deserve such distinction as they are carried out in this country, but it might easily be otherwise. We are daily building viaducts, and bridges, and tunnels, and stations for our railways, and piers for our harbours; lighthouses are perched on every promontory along our coasts; and thousands of other works are daily being erected, which for magnitude and magnificence are unrivalled in the world, but scarce one of them attempts more than merely to effect the

useful purpose for which it was designed, with sufficient durability and at the least possible expense.

It is true that by this means the works of our engineers have escaped from the affectation and servility that characterise all those of our architects, and this is no small gain ; but still they afford vast opportunities for artistic treatment, all of which have been neglected ; and it is not a little provoking to see a work that a very small modicum of taste would have draped with beauty, standing before us naked and cold, without one feature to redeem its common-place vulgarity.

The Romans were one of the few nations of antiquity that paid much attention to this class of art, and, generally speaking, their engineering works are better specimens of art than their architecture ; and in India I have seen walls and embankments to lakes, and such-like structures, that are more artistic architectural objects than most of their temples.

Not only, however, are the permanent works of the engineer capable of being elevated into objects of art, but both ships and carriages are, to a certain extent, capable of such cultivation. To my mind all ships are more or less objects of beauty ; and there are few of man's works I gaze on with more pleasure and satisfaction ; but to others they may not be so, and, even then, as most of them are designed for purely utilitarian purposes, they must be classed among the objects of useful art. But if any one will realise to his mind the distinction between a cotton-factory and a nobleman's palace, and compare the difference between them with that which exists between a merchant-ship and a pleasure-yacht, he will find, that if the palace by its objects and its ornaments is entitled to be considered an object of fine art, so must the yacht for the same reasons ; and in the same manner a brewer's dray and a gentleman's carriage bear the same relation to one another that the brewery does to the ornamental villa ; and in this country the equipages of the upper classes are objects of art of which most Englishmen feel prouder than they can do of any production of a higher class ; and go where you will and listen to an Englishman recounting in what he conceives his country surpasses all others, he will, as I said above, first dwell, perhaps, on her gardens and parks, but next, at least, will come, if not first, the unrivalled turn-out of equipages in the metropolitan parks.

Gardening and carriage-building are, I admit, fine arts, but certainly not of the highest class, nor the ones for which I should like to see this country famous. They are, however, those we have hitherto cultivated

with least affectation and most success, and till we have something else to be proud of, it is lucky we have got them to pride ourselves upon.

The works of the military engineer, which come next in our classification, do not, I fear, offer such a field for artistic treatment as those of his civil competitor. There is no iconoclast like a 24-pounder; and it would be a mockery to expose any thing like ornament or art to its Celtic propensities. Gunpowder has, I fear, taken this art, for the present at least, quite out of the category of fine arts, but it need not be so entirely abandoned to commonplace utilitarianism as it has been. There are many buildings, in forts and strong places, which, from their solidity and size, are eminently capable of a certain artistic effect; and though it is true, that if the place is besieged they may be destroyed, the reasoning is the same as if we were to say, It is no use building a handsome house in a town because it may be burnt down. Certainly, not one fort in twenty of those that cover the face of Europe has ever been exposed to a regular siege, or probably ever will be, and there is no reason, therefore, that they should cumber the earth for centuries with more than necessary ugliness. War is hideous enough in itself, without its monuments reminding us so constantly of its total want of taste or feeling for anything that is beautiful; a little art in its works would plead at least one little palliation for its atrocities.

Neither in this country nor in France do the engineers appear to have thought of this, but in some of the fortifications recently erected in Germany considerable trouble and expense have been bestowed on them for the purpose of rendering them objects of art, as well as of defence. The masonry is frequently beautifully executed, the embrasures and openings surrounded by bold and appropriate mouldings, and the towers and curtains surmounted by a bold cornice of machicolations; all which, combined with their size and necessary massive solidity, make them nobler buildings than almost any of the works of their architects I know of, and, with a very little more well-directed thought, would easily enable them to surpass the mediæval fortifications we now so much admire.

SECTION VII.

ÆSTHETIC ARTS.

TABLE E.

SENSES.	TOOLS.	USEFUL ARTS.	FINE ARTS.
TASTE.	Cooking Apparatus.	Cooking.	Gastronomy.
SMELL.		Compounding Odours.	Perfumery.
TOUCH.	Measuring. Weighing.		Eumorphics.
SIGHT.	Optical Instruments.	Optics.	Euchromatics.
HEARING.	Sonal Instruments.	Acoustics.	Music. Dancing.

BETWEEN the two great divisions of the Technic and Phonetic Arts comes that of the Æsthetic Arts, comprehending all those that depend neither on the hand or muscular sense—as it has sometimes been called—of man, or the amplification of its power, or on his voice, but which are either direct uses or amplifications of his senses of Taste, Smell, Touch, Sight, or Hearing. Perhaps there ought to be a separate group for each sense, and were any of them sufficiently important in itself, this might and should be done; but, with all their amplifications, the whole group does not equal in importance either the technic or phonetic divisions, and it is, therefore, more convenient to consider them as one; and even then it must rank as subordinate to the other two.

These five senses we possess only in common with the lower animals, and, as before remarked, physically our senses are frequently inferior to those of selected instances among the animals. No animal, however, has the whole five in so well-balanced and equal a degree as we have them; and man alone has the power of extending their use, or improving in any way the natural powers given to him in birth; and is, besides, the only living thing that has the smallest conception of using them cal-æsthetically, or as elements of beauty, and for the gratification he may derive therefrom.

I have already spoken of cooking and gastronomy when classifying the Technic Arts, though, in strictness, the latter, at least, ought to be treated

of here only, if we adopt the mode of classification indicated by the separate Tables D, E, and F, instead of that presented by the compound Table D E F. I myself prefer the latter, as I said before; but, in a sketch like the present, it is immaterial whether we adhere strictly to the one or the other.

We have scarcely done any thing to extend our power of scent in a useful point of view, and though in the table I have named perfumery among the cal-æsthetic arts, I feel half-ashamed of doing so at all, so little is it understood or practised in this sense in this country, or indeed in modern Europe. Nothing, however, can be more certain, than that to the sense of smell, as well as to the sense of hearing or any other, there is attached a feeling of beauty and of pleasure which, if properly cultivated, is capable of affording high gratification to man. To my mind, the power of scents, in calling up associations, is quite as powerful as those of sound; and in visiting and re-visiting different countries, I have always found the smells appeal to the senses and memory more strongly and individually than the sounds; and to many the natural smell of flowers affords at least as much gratification as the natural song of birds. It must, however, be confessed that the sense of smell is one of the least important to man of any of those he is endowed with, and that he often loses it for days almost without being aware of the fact, while he could not become deaf or blind for many minutes without being not only aware of, but painfully distressed by, the fact. At the same time, smell is the one sense in which animals seem to surpass man; many mammals, and some birds, being apparently able to discriminate by this sense what man's organs confound, and to perceive also smells at a distance of which man has no conception. Both which are good reasons for supposing that it cannot be cultivated cal-æsthetically to the same extent as music or euchromatics; but I cannot but think more might be made of it than has been, and that we are wrong to neglect any beauty that nature has placed at our disposal.

But if we neglect this sense as an art, such does not appear to have been the case in other days. In the Pentateuch the regulation of the incense and odours to be used in worship was almost as important as that of the building itself. The Greeks and Romans not only used it in honour of their gods, but seem to have steeped themselves in odours in every relation of their lives; and in the middle ages, like every thing else, it became an essential implement of worship, and was cultivated accordingly. In Catholic countries now, incense is always used in high ceremonies;

but, like every thing else, it is a form slurred over in the easiest and cheapest way, of which no one thinks, and for which no one cares further than that it be used in the proscribed fashion; and it is as cold and lifeless as all the other arts; but it might be otherwise: and whether it is capable of ever being cultivated to the same extent as music or not, it is no doubt one of those pleasures which nature has attached to the use of our senses, and as such it is deserving of attention and cultivation, though perhaps not to the same extent as the other cal-æsthetic arts.

The senses of Touch and Sight are the two by which we principally acquire a knowledge of the form, size, number, and weight of external objects, and the use of them has given rise to numberless anthropic inventions, all which should be classed here as *Æsthetic Useful Arts*: among which I would place all concerned in weighing, measuring, enumerating, surveying, &c.; in short, all arts by which our natural powers of touch or sight are extended, improved, or corrected. Those by which this is done for the first-named sense have never been even classified nor received a name; but the useful art of Optics, which is concerned with the amplifications of the second, is a well-defined and understood one, of the utmost importance to mankind, and evidently capable of far greater extension than it has ever yet received.

For the fine arts I have been obliged to invent two new names, *Eumorphics* and *Euchromatics*; meaning by the former beauty of form or proportion, which, as a separate art, ought to be more studied than it has been. To the touch it is scarcely important—though a smooth and rounded, and, perhaps, a soft or elastic form, is more agreeable than one without these properties—but to the eye beauty of form and proportion is in some of the arts most important: as, for instance, in architecture, where the proportions of an apartment or building are easily observed to be beautiful or otherwise; and though the beauty of fitness may often induce us to forego this, or reconcile us to the want of it, it is one of the most important elements in architectural excellence, and a harmony which even the most uninstructed can perceive: it is, also, very important in sculpture and painting, as well as in almost all the technic arts, such as pottery, glass-blowing, upholstery, &c.

The other art of *Euchromatics*, or beauty of colour, is better understood as a separate art, and the existence of a real æsthetic harmony of colour as universally acknowledged as the harmony of sound in music; to which, indeed, it has often been compared, and not a few fanciful

theories have been formed on the supposed identity—or, at least, similarity—of the two arts.

Colour in itself is, perhaps, essentially necessary, to enable us to distinguish between the different objects presented to our vision; at all events it is most useful for this purpose, and most, if not all, animals have it in common with ourselves: but the power of appreciating its harmony and value is purely anthropic, as the arts based on this property certainly are.

All are familiar with the effect of the harmony of colours generally found in nature, and the pleasure this produces when successfully imitated in landscape-painting or similar arts. Artificially, it may be applied to house-painting, or dress, without the least reference to either its technic or phonetic value; and a most pleasing effect be produced by the mere juxtaposition of harmonious colours, or the most painful discord and vulgarity arise from a want of feeling or of knowledge in arranging them.

Still the art of harmonious colouring, like most of the cal-æsthetic arts, can scarcely be said to rise to much importance in itself, or practically, at least, has not hitherto done so; but some of the technic arts owe their powers of refinement to it as much as, if not more than, to form. Glass, porcelain, upholstery, dress, floriculture, and many others, derive their principal charm from it; (the latter being the only one that, besides these two elements of beauty, enlists also the harmony of scent in its favour :) and though we have not yet applied it to external architecture, as the Egyptians and Greeks did, and always with the best effect, our interiors always depend more or less on it for their effect. I need scarcely say how much yet remains to be done before this art can be called even respectable; it is, nevertheless, true that in many instances the house-painter is even now a more important person, as far as the effect of an interior is concerned, than the architect, and were the art more perfect, I am not sure if he should not rank first, and form give way to colour. But I need scarcely add, that perfection lies in using harmoniously two or three or more harmonies, and to combine these so as to make a perfect whole.

On the other hand, even phonetic painting owes half its beauty and value with us, to this art, which, in this instance, is as much overrated as it is underrated in the technic art; for except, perhaps, in landscape-painting, and the lowest walks of art, its employment is by no means

essential, as may easily be seen by observing how perfectly monochromatic engravings render all classes of pictures, from the highest to the lowest, and, in most cases, they do this more faithfully than a coloured copy by the same artist would do, and in many pictures I am convinced that the absence of colour would be a very great advantage. Still it no doubt frequently helps the painter in attempting to express himself distinctly; but in modern times, at least, artists cling to it with a tenacity which is not a little remarkable, and would be unintelligible if we did not know how often their pictures contain nothing else but a skilful display of this somewhat meretricious adjunct.

On the other hand, we have entirely banished it from sculpture, for no better reason that I am aware of, than because time has washed away all the colour of the statues of the Greeks; and because they are now colourless we must now exercise only monochromatic sculpture. I admit that the highest class both of painting and sculpture would be as well, perhaps better, without it, but portrait-sculpture, and all the lower grades of art, would certainly be improved by it; at all events, we ought either to abandon it in the one or use it in the other, for if it is useful and lawful in painting, it certainly is so in sculpture. But every man may decide for himself what course should be pursued: for myself, I have no doubt but that colour would always be an agreeable adjunct where used as it should be in both arts. It may heighten and bring out vulgarity, it is true, where that exists in the mind of the artist, but it enables purity to express itself more clearly and vividly, and it adds a charm to every thing, and nothing that does so should ever be lost sight of by the artist. Were we really copyists of the spirit of Greek art, not merely imitators of its forms, we should certainly avail ourselves of it on every occasion.

Hearing, like the other senses, we possess only in common with the other animals, and though we have done something, we have not done much, towards perfecting or extending our natural powers in this direction; still by such an instrument as a speaking-trumpet we can make our voice heard further: but all the inventions for hearing better have only been applied to remedying natural deficiencies, not for the improvement of the healthy organs, though, no doubt, much might be done in this direction. Acoustics, however, is a well-understood art in itself, and like optics capable of indefinite extension, though inferior both in use or extension to the other; but be this as it may, the cal-æsthetic art of music is of all those

of this class the most typical, and by far the most perfect and the best understood. Perhaps it is the one which, from its own intrinsic nature, is most capable of such elaboration into an independent fine art, but this is not quite clear abstractedly, though practically it certainly has, hitherto at least, been the case; and though we have not done much to increase our power of hearing or speaking as useful arts, we have invented a vast number of instruments to give utterance to or extend the cal-æsthetic form of this branch of art: indeed, there are few classes of implements used in any of the arts that exceed in ingenuity and complexity those usually comprehended under the title of musical instruments.

In its own simple form, music is undoubtedly as essentially an un-phonetic art as architecture, being utterly incapable of expressing, or of being substituted for, language in any of its forms. Joy and sorrow it can express, so can the song of the lark or the plaint of the nightingale. It can repeat almost every emotion of the human heart, but not more distinctly than can be done by animals either to one another or to us; but by far its highest and noblest province is when, like architecture, it is combined with language, and becomes more or less phonetic.

With us the opera and the oratorio are two of the highest forms of musical utterance. In the former, the language is almost entirely sacrificed to the music: in the latter, not so much so, but still too much. On the other hand, poetry is nothing more, as usually understood, than prose with music, the music here being the rhythm, or whatever form of modulation may be added. As far as it is a phonetic art, the poetry may as well be expressed in a translation, without metre of any sort, and if the language is as elevated, it often is better rendered without it than when it is attempted to transpose the rhythm also; but between the blank verse of the "Paradise Lost," for instance, and the concerted piece of an opera, there are innumerable degrees of variation, according as the phonetic or æsthetic mode of utterance predominates. But among them all we seem to have overlooked the best and highest, which would be where the phonetic predominated over the æsthetic in some such ratio as that of two or three to one. Such, I believe, was the case with the Chorus of the Greeks; but I do not know one instance of it in modern times. The opera, and indeed the favourite mode of expression, is directly the reverse of this, the harmony or melody occupying three-fourths of the character of the piece. In some ballads and lyrical pieces, when sung as they should be, the words have as much importance as the music; and few, I think, but will admit that when this

can be attained, it is a higher class of music than the mere inarticulate modulation of sound, either by the human voice or an instrument, however beautiful they may be in themselves. Were, however, the words to be allowed to predominate still more, so as to form a recitative of the highest class for either one or more voices, there is very little of our highest class of poetry that could not be so sung, and that would not be improved by being so. All the sublimer passages in Shakspeare and Milton, which it would be profanation to set to music as that word is now understood, would be heightened in effect if sung in this manner; and I cannot but think, that when Milton wrote the "Allegro" and "Penseroso" he meant this, and not that they should be read as we read prose, and certainly not that they should be sung as we sing nowadays.

To do this well would, I confess, be difficult; it would require musicians who were poets, or at least could feel all the poet felt to compose these melodies, and artists of a high class to execute them; but it could be done, no doubt, and any step towards it would be a step in advance to a higher developement of music than we now know.

To my mind music to be perfect ought to be to the phonetic expression what the sun and the atmosphere are to the landscape,—never the principal or even the apparent objects, but beautiful in themselves and indispensable adjuncts,—at one time lighting it up with the sparkling brilliancy of the noonday light or darkening it with the lurid gloom of the approaching storm,—awakening it with the glad promise of the dawn, or steeping it in the melancholy mellowness of evening twilight; never altering or obscuring its features, leaving these distinct and clear, but rendering to it by reflexion that varied expression which light and shade alone can give, and which, when judiciously applied, can lend a charm to the commonest scene and can double the beauty of the best.

Directly antagonistic to this union of music with words is the mixture of music with mere motion, forming the fine art of Dancing, which thus makes the exact pendant in the scale to poetry; but, as it might be assumed *à priori*, the union of an æsthetic with a technic art forms a compound of a most inferior quality to the union of an æsthetic with a phonetic one. Young and unformed minds generally prefer the former to the latter, and with all young nations dancing assumes an importance of which civilised people have but little conception. The war-dances of savages all over the world, at the present day, are their most striking and important national ceremonies; and with the early Greeks we all know how important the

choral dances were, in which whole communities joined, and which in more civilised times laid the foundation of their splendid drama. There is nothing in modern Europe that can afford the remotest conception of these choral solemnities. Perhaps a review of soldiers is the thing most like it; but that certainly was designed for very different purposes, and the resemblance is an accidental adjunct, conveying but little of the art that might, if it were thought worth while, be infused into such a display.

With the Greeks the three arts were frequently practised together on the stage, the chorus moving rhythmically about and singing at the same time to an instrumental accompaniment. This is sometimes attempted in an opera, and always I think with the best effect; but it is not an acknowledged means of effect on these boards, and from its being used but rarely, and then only as an accompaniment to the national airs and the lower class of chorus-singing, it does not produce the effect it might do, and I am convinced might easily be made to produce, if used as the Greeks employed it.

SECTION VIII.

PHONETIC ARTS.

TABLE F.

	POWERS.	PRIMARY ARTS.	APPLIED ARTS.	FINE ARTS.
SPEECH, or Power of communicat- ing Thoughts or Ideas.	Imitative Repre- sentations.		Imitation in Relief.	Sculpture.
	Hieroglyphics.		Ditto on flat surface.	Painting, Engraving, &c.
	Symbols.	Grammar.	Symbolical Repre- sentation.	Symbolism.
		Logic.	Verbal Expression :	Poetry :
	Alphabetic Wri- ting.		Narrative, Prose Imaginative or Synthetic. Logical or Ana- lytic.	Narrative, Dramatic, Lyric. Eloquence.

I HAVE already, perhaps, sufficiently insisted on the difference between the emotion-expressing voice of animals, and the new power, I might almost call it the new sense, of speech as given to man; and, however tempting the subject, this is not the place to point out either the discrepancies or the affiliation of languages. For our present purpose it is sufficient to know, that in every case the similarities exceed the differences to so infinite an extent that all the languages of the earth may be spoken of as one, as certainly as we can speak of man as at least one genus; and though in both cases it may be possible to discriminate species, it is, to say the least of it, excessively doubtful if they exist, and no confusion has ever arisen from speaking of man as one; nor, consequently, can any arise from treating language in the same way. For whatever difference of sound or inflexion the different races of people may use, they all use the same parts of speech and the same modes of expression; there is no phrase in any language which cannot be rendered into every other language of the earth, and consequently all abstract reasoning applied to one applies to all.

Memory is the natural power that has been given to man for the

employment and use of language, and, under the guidance of his intellect, occupies in the phonetic branch of the subject precisely the same place that the human hand and muscle occupied under like guidance in the technic arts. Animals may have more muscular power than men, and a blow from the paw of a lion or a kick from the hoof of a horse may surpass any power he can exert, and I am not prepared to assert that animals may not remember some simple things longer than men ; but I am certain that for variety and complexity of power the human memory as far exceeds that of animals as the human hand does their hoofs or claws ; and when both are educated and employed as they are by civilised man, they are engines of such power that it is difficult to recognise their affinity to their prototypes. Unassisted memory, however, would scarcely do more for man than the unassisted power of his muscles, and, but for the tools he uses to extend its power, the gift of speech would lose half its value to him.

There have been, and indeed now are, tribes so rude that a knot on a string, a notch on a tree, or a rude scratch on a stone, are the only means they have invented for extending the powers of speech or memory that they were born with. But it was impossible that man could long remain thus ; and though we still probably want some of the links in the chain, there are at least four steps in advance of one another with which we are perfectly familiar. The first, the Hieroglyphic Writing of the Egyptians ; which, did language consist entirely of substantives, might, though a tedious, be not a bad means of expressing what we mean. Verbs or proper names, however, and other parts of speech, are not so easily expressed, notwithstanding the ingenuity with which they got through the difficulty. Still the Chinese system appears as a distinct improvement on this, by abandoning in every case the representation of the thing signified, and adopting an arbitrary sign for every word. The system has some advantages it must be confessed, but they are far overbalanced by its defects, and the immense amount of labour required to remember so great a number of unsuggestive signs.

The capital improvement, however, in this department of human progress was the invention of an alphabet of some twenty or thirty arbitrary characters. When this was done does not appear, nor by whom ; but there does not appear to be any reason to suppose that it came out of the other two : on the contrary, it seems to have been the independent invention of some of the races between the Tigris and the shores of the Mediterranean, and probably at a period when the hieroglyphic system was in full force and before the invention of the Chinese plan. The Hebrews and Phœni-

cians are the oldest people we know of using the alphabet, which they certainly did some thirteen or fourteen centuries before the Christian æra ; but even they do not lay claim to its invention. They found it in Syria ; and I cannot help thinking that it was taken there by a people whom further on I have ventured to call Pelasgi, who about that period seem to have been in a state of decay and dying out, so that our history never comes into direct contact with them ; but the traces of their arts and civilisation are everywhere apparent under the overlying strata of the Semitic and Indo-Germanic tribes, who occupied their primitive abodes at the time our real history dawns on us. But be this as it may, the Greeks were, after the Hebrews, the people who brought, not indeed the alphabet, but the use of it, to perfection, and applied it to history, philosophy, and poetry, so as to create a whole literature such as did not exist before, and could not have existed without the facilities which the full use of the alphabet gave them in expressing and recording their observations and thoughts.

To this we have added the fourth form, that of Printing, an invention of which we do not yet see the result, but which is making a revolution among us as extraordinary as the alphabet did with the Greeks, and which must yet lead to results we scarcely dream of.

In this classification, the printing-press occupies the same position with reference to the phonetic that the steam-engine does in regard to the technic arts. Neither gives man any really new power, or do what could not be done without them ; but they increase his powers of muscle and of speech ten thousand-fold, and advance to an incalculable degree the powers of his mind over the necessities of his body.

Man's hand, for instance, is quite sufficient to turn the spindle and his arm to throw the shuttle ; the steam-engine turns fifty thousand spindles with unerring precision, and throws a thousand shuttles with the same ease and regularity. A galley might be rowed by a hundred men as fast perhaps as a steam-boat could go, and a carriage might be driven as fast by human power on a railroad as by a locomotive ; but with a steam-engine man lights his fire and looks on, and two or three men do with ease, and almost without exertion, what thousands could scarcely, without this invention, effect with infinite toil. So with printing : books have been written and circulated before it was known ; but they were rare and dear, and education of the masses was impossible. But now an idea strikes one, a word is spoken, or a discovery is made, and in a few hours a thousand or thousands of impressions of it are presented to all whom it interests, and are being

dispersed to the remotest corners of the globe. The post-office, with all its complexity of detail, is one of the great inventions of modern times, enabling men, however distant, to converse with one another, and with a regularity and ease with which we have become so familiar that we scarcely appreciate its value. And latterly a new voice has been invented in the Electric Telegraph, which bids fair to enable men at the distance of hundreds of miles to converse with one another as easily as if they stood face to face. And no doubt other tools and engines will be invented by which the natural powers of man's voice may be extended as much or more than the powers of his muscles have been; not only in loudness, if I may use the expression, so as to be heard almost instantaneously at the remotest corner of the earth, but in durability, so as to last longer than the pyramids of Egypt.

Had man been endowed with a pair of wings added to his shoulders, that he might fly to the remotest corners of the earth, it would not have been of half the use or benefit to him that the steam-engine has been and will be, though, perhaps, it might have induced naturalists to take him out of the genus *Quadrumanus*; and had the gift of tongues been given him, that he could speak and understand all the languages of the earth, it would not have benefited him to half the extent that the printing-press has done.

Let those who deny the progress, and despair of the perfectibility, of the human race, look attentively at these two inventions. Is it nothing within the last five hundred years to have acquired for man the hundred arms of *Briareus* and the seven-league boots of the nursery tale, and to enable him to make his voice audible to any human being on the surface of the globe, and not only now, but echoing to all succeeding ages?

And are we to stop here? do we now see even one half of the purposes to which these two inventions may be applied, or can we have any conception of what the next age may bring forth, more than the Greeks had of these? Power begets power; and, judging from the past, our progress is in a geometrical rather than in a simple arithmetical ratio; and though it is scarcely given to us to guess in what direction we are tending, he must have looked into the history of the past with very different eyes from those which have guided me in my studies, who does not see a certainty of progress and improvement to a degree quite incalculable.

If we adopt for the Phonetic the same mode of classification as was pointed out for the Technic and Æsthetic Arts, it is easy to arrange them under similar heads; it is not, however, so necessary with them as with the former classes, especially the first, for they are neither so numerous nor so complex, and the leading divisions are easily understood.—To pursue the analogy, however. The first means that man adopts for extending the natural power of his voice is that of Hieroglyphics, or picture-writing; the Egyptians employed only this mode, we, on the contrary, adopt it only as ancillary to the alphabetic method, and so completely that we have almost forgotten its original destination; and both sculpture and painting are with us idle arts, used merely as luxuries, or, at most, as auxiliary illustrations of the verbal arts. In Egypt, however, they were the only mode of expression, and in Greece, at least, took half the burden, and were as important means of expression as words alphabetically expressed.

Symbols form a second class of powers, wholly used by the Chinese, but by us only employed in arithmetic or geometry, either as figures or algebraic symbols.

The most perfect, however, is the Alphabetic mode, which assigns to every word a set of signs, easily recognised, and rendering written language as certain and as easily understood as when spoken.

The tools, engines, and machines, by which these powers are accumulated or directed, are brushes, pens, or types—statues, pictures, letters, books; the latter under their myriad forms of ephemeral publications, periodical ones or standard works, and encyclopædias, &c. &c., which I need not enumerate here.

For Primary Arts we have grammar and logic, in their widest, and at the same time, most abstract sense.

For Useful Arts we have sculpture and painting, as these are, or may be, employed merely to represent natural objects or portraits, or to announce some literal fact, or tell some mere prosaic tale; and in words we have all—simple, narrative, didactic, and, generally speaking, all works usually comprehended under the term prose.

All these may be elevated into fine arts, in a class I have ventured to call Euphonic, to which belong all the higher branches of sculpture and painting whenever these arts attempt poetry or elevation of sentiment; and in the other, or verbal branch, eloquence and poetry, in all their thousand-and-one forms.

The distinction between the phonetic and euphonic groups is easily understood in written works, but in sculpture and painting this is not the case with us. We do not know what the first means as a useful art; for even portrait-sculpture with us tries to elevate itself into something Greek, with a sort of undefined notion that whatever imitates the arts of that people must be a fine art, from the mere fact of imitation; and although painting is not quite so exclusive, all painters are considered artists, and their works euphonic, though one half of them do not pretend to rise above the level of the merest prose, and, consequently, have as little claim to be ranked as objects of fine art as a matter-of-fact description of the landscape or living scene they represent would have to rank as poetry.

Engraving and drawing, of course, in all their ramifications, in such a classification take rank with painting, as they are merely different modes of expressing the same idea, and would be easily classified were it worth while.

The sculpture and painting here spoken of are, of course, neither the technic arts of carving or colouring, nor the æsthetic ones of using forms or colours for their sensual harmonies; but when sculpture and painting are used, it may, and should be, in conjunction with their technic and æsthetic compeers,—either as substitutes for words or in aid of them, to express some intellectual form of utterance, which is clearly their highest and noblest attribute.

I am not sure that I have seen it distinctly asserted, but I know that the opinion has often been hinted at, that writing, painting, and sculpture, are only different forms of the same mode of expression, differing only in degree. Of the three, writing is by far the most comprehensive, in some respects the most distinct; and painting cannot, perhaps, grapple with more than half the subjects that words can express, though in many instances it makes up in vividness for its want of generality. Thus no form of words can ever so distinctly convey to the mind of another the features of a man's face, or of a landscape or building, or indeed, of any material thing, as a picture can. The history of a campaign or of a country may be represented in a series of pictures, and if well done, and sufficiently numerous, form no bad substitute for the written page. Novels have been so written: witness Hogarth's "*Marriage à la Mode*," or the story of the two apprentices. Biography has been so written, such as Le Sueur's "*Life of St. Bruno*;" and, indeed, almost all narratives may be so expressed. The "*Iliad*," or the "*Paradise Lost*," might possibly be so written; and, indeed, there is little in narrative,

either poetical or prosaic, that pictures cannot represent, more or less perfectly. But such works as Locke on the "Understanding," or Laplace's "*Mécanique Céleste*," all abstruse logical reasoning, and many of the ideas expressed even in the simplest narrative, are quite beyond its province. But though it is true that painting cannot express all that words can, the converse is equally certain that words can express—sometimes, indeed, less vividly—all that painting can, and, as before said, much that it cannot.

The same remarks apply to sculpture in some respects; though in the representation of the human figure it is superior to painting, from its being in the round, and repeating the form of man in every point of view, not only at one fixed point, and by conventional means, as painting does. But landscape seems beyond its power: a model never gives the same representation that a man sees in nature, and distance and perspective have, at least hitherto, not been mastered in this art, though it is not impossible they may be. The same causes prevent its dealing with great crowds or complicated subjects, unless, indeed, it approaches nearly to its sister art in becoming little more than an engraved flat surface. But be this as it may, they evidently are sister arts, concerned in representing the same subjects, each in its peculiar way, and both may be, undoubtedly, phonetic. They either are the text themselves, and tell the tale that might have been told in words, or, more commonly with us, they illustrate or repeat the text, and tell in another form what has already been told, though less vividly perhaps, in the written page.

This will, perhaps, be more distinct if we turn to any of the technic arts; take architecture, for instance, as it is usually classed with them. It is true the phonetic arts can express this: words can describe it, a painting or a model represent it, but the converse is not true. Architecture can repeat no narrative, illustrate no book—it imitates nothing, illustrates nothing: it tells no tale, and barely manages to express an emotion of joy or sorrow with the same distinctness with which they can be expressed by the unphonetic brutes. It is true that by the addition of sculpture and painting a building may become phonetic, but we must not here confound two distinct modes of utterance: the voice is in the last-named arts, not in the technic; but combined together, they form one of the noblest compounds that man has yet put together.

If we turn, for instance, to such cathedrals as those of Chartres or Rheims; on their walls we have not only a history of the world from the

Creation—through the whole of the Old Testament down to the time of the building of the church—but a whole encyclopædia of arts and manufactures; agriculture, brewing, baking, spinning and weaving, carpentry, and building, all illustrated here. A whole code of morals, too, with the appropriate rewards and punishments; and a whole treatise on theology, the Trinity, archangels, angels, saints, and all the heavenly host. Indeed if proof were wanted how completely all these arts are phonetic, every statue and every window here would prove it, in these vast sculptures and painted bibles and encyclopædias of the middle ages. But the building itself is but a scaffold for their display, and a protection to shelter this vast and wondrous book. Itself it stands robed in beauty and magnificence, it is true, but mute and silent as the mountain or the forest that clothes its sides, and as incapable of repeating man's voice as they are.

The same remarks apply not only to the technic but to the æsthetic arts; even music, which, using the same organ, and addressing the same sense, comes nearest to the phonetic arts, cannot in itself ascend beyond the expression of an emotion; narrative, or any distinct and individual form of intellectual utterance, is entirely beyond its power.

We now scarcely know what symbolism means as a fine art, but in the middle ages, as in Egypt, half the religion and poetry of the age was represented or expressed by purely conventional symbols, sometimes having only the remotest possible analogy to the thing represented. I question much if this could be revived in an age like the present, when the verbal form of utterance is so universally prevalent, and certainly do not think it expedient that it should be; but be this as it may, it was at one time certainly a well-recognised mode of utterance, and as such entitled to a place in our classification.

I do not know of any better category by which to classify the subdivisions of these phonetic arts, either in their imitative or verbal forms, than that which Bacon adopted for all human knowledge, arranging them as they belong, more or less directly, to the three principal faculties of the human mind, or as belonging to Memory, Imagination, or Reason, according as either of these predominate in the work or object of art.

In the first must be classed all narratives or histories, every thing, in short, that has reference to time, or, to speak more correctly, to past time; for it does not, of course, refer to time in the abstract sense in which I have frequently used the word in previous parts of this work. It

risers into a fine, or euphonic art, under the title of epic poetry, and all the various classes of poetic narrative.

The second includes all prose fictions as a common art, and as a fine one all classes of imaginative poetry, whether lyric, dramatic, didactic, or otherwise.

The third has philosophy for its useful basis ; and though, to prevent inventing a new word, I have used Eloquence as its euphonic form, I do not, of course, mean thereby the art of persuading or pleasing the ears of an audience by well-chosen and well-spoken words, but the highest class of refined reasoning and philosophical utterance of which man is capable, considering it as the most elevated of all the arts.

The distinction between the first and the two other classes is sufficiently distinct and easily understood, but it is not so easy to define correctly what the difference is between the two latter, as they are in reality only different forms of the same faculty.

In imagination a man puts together premises that do not—perhaps cannot—exist together, to make up an assumed conclusion ; in reason he reverses the process, and from the observation of existing facts or premises assumes, or arrives at, a given conclusion. Thus if any one wishes to imagine a good man, he groups together such characteristics or peculiarities as to his mind make up such an ideal. On the other hand, reason, carefully observing a man's actions, arrives at the conclusion that he is good or otherwise. Imagination may talk of golden mountains, and eternal springs, shoreless oceans, and such-like things ; our reason, through the sciences, has put us in possession of nobler and better facts than these, and is conducting us to a far higher class of beauty, and more elevation of thought and character, than any imagination can ever conduct us to.

Young nations and young minds do not reason from observed facts, but call on the direct intervention of a deity to account for every thing they see, but cannot trouble themselves to study and understand. They scarcely even imagine any thing, and are, as I before observed, content with the lowest forms of the æsthetic arts. A second stage, which is the one to which Greek civilisation reached, accounts for every thing through the intervention of that most imaginative of sciences, Metaphysics, which with imaginative poetry make up their highest utterance. The highest stage is when man confines himself to the observation of God's works for his facts, and, using his reason alone, draws from them those

beautiful and sublime conclusions, which are the highest aim, so far as we know, that he can reach to; there may be a higher, but we do not yet see it. The Greeks could not foresee this stage, and never aspired beyond the second; and it would, therefore, be arrogant in us to assume that because we cannot foresee it, there can be no higher one than what we see. Nor can we hope to see it till we have more fully realised this one to ourselves than we have yet done; for even now most people, in speaking of the arts, would class the works of imaginative poetry above those of pure reason; and, educated as we are, there is something to most minds cold and repulsive about science. Its truths do not warm them, and they cannot comprehend its sublimity: while, on the other hand, there is a syren sweetness about poetry that lures us to enjoy it without overtaking our indolence. But those who have advanced beyond this know how poor a substitute the best of man's imaginings is for a knowledge of God's truths.

Sculpture and painting, even in their boldest flights, have never reached or attempted this highest mode of human utterance, nor do I think it probable they ever will. Narrative and imagination are more especially their province, and there they often rival words, not only in vividness, but in conception also. If, however, they cannot reach the highest, they form, by connecting the higher phonetic with the æsthetic arts, most important links in the great chain of human arts, which, rising from man's lowest bodily necessities, elevates itself by almost insensible gradations to his highest intellectual aspirations. All are essential, and all valuable, though in a greater or less degree; and when such a classification as I have been here attempting, or some better one, shall have been perfected, we shall be able to assign to each art its position, and ascribe to it its true relative value.

To this I shall return presently, but in the meantime must dismiss the Politic* Arts with a few observations, that their place may be known; though neither their value nor their purposes are objects on which in a work like the present it is necessary that I should dwell long.

* I have used throughout the word Politic instead of the more usual one Political, that it may have the same termination as I have given to the names of the other arts;

and also because I use it in a somewhat different sense from the common word, from which I wish to distinguish it.

SECTION IX.

POLITIC ARTS.

TABLE G.

PHYSIOLOGY.			
Medicine.	Hygiene.	{Exercise, Diet, Temperance, &c. Police.	
	Surgery.		
	Pharmacy.		
ETHICS.			
Morals.	Education,	{Family Public.	
	Laws,	{Civil. Criminal.	{Persons. Things.
	Government,	{Legislative. Executive.	{Political Economy. Politics. Judicial. Police.
THEOLOGY.			
Religion.	Creeds,	{Natural. Revealed.	
	Ecclesiastical Establishments,	{Caste. Lay.	

THE remaining three groups into which I have divided the science of Anthropics differ in so many things from those I have been treating of, that I do not see how, in their present state at least, it is possible either to confound them or class them together. As I hinted before, they neither depend on the senses of man, nor are they amplifications of his senses or intellect, which I conceive all the other arts to be. It is possible that they may be discovered to be amplifications of intellectual senses, which, as such, would rank higher than the corporeal ones, or than intellect considered merely as a power, which it is with reference to the Phonetic Arts; and in this case, when cultivated as they should be, they would, no doubt, form a higher mode of utterance than either of the forms of imagination or reason, which, at the end of the last section, I classified as our most elevated forms of art; and in them, consequently, may reside that higher aim towards which future generations may strive. I need scarcely add, that as at present carried out there is no trace of this either in their theory

or practice. With us they are little more than mere "*remedial arts*:" something invented to palliate corporeal or moral evils, the existence of which is assumed as unavoidable, and the remedy applied after its occurrence to cure it if it can, not to avoid its happening at all.

I am convinced they might be cultivated so as to merit a far higher title than this, and that it is only the imperfect mode in which they have hitherto been cultivated that renders such a title at all applicable; and I think I can perceive a tendency that way in most of them. Medicine has hitherto been employed only to cure or alleviate diseases already existing; but an opinion seems creeping over the public mind that it might be as well, by proper sanitary measures, to prevent the occurrence of the malady, as merely to take it in hand when it has acquired a power which can only be controlled by violent remedies.

In like manner laws have hitherto been made only to check existing evils or punish crimes already committed; but men begin to think, that by education and innocent recreation it might be as well to try and induce a man to refrain from crime, as merely to hang him up when the mischief is done. And though not so true, perhaps, Religion has only too often tried to remedy, by a mere form or ceremony, the absence of that true spirit of love and adoration which is its essence; and the Inquisition in some form or other in this world, and Hell in the next, have been as often appealed to, as that persuasion which would lead man to good, or that force of reasoning which would bow him in adoration.

Another characteristic from which I have ventured to give them the name of *Politic Arts* arises from their being essentially arts belonging to communities rather than individuals. A man may write a poem, paint a picture, build a house, or cook a dinner, entirely for himself or his own gratification; but the fundamental idea of morals, or its extension, law or government, is man's relation to other men as members of a community; and the same is true religion, if one carefully distinguish it from the science of Theology: and though if medicine were mere drug-taking, a man might, of course, physic himself, yet in its higher sense, as concerned with the bodily health of communities, as religion is with their spiritual well-being, it is essentially an art of a community. But in this, as in all other instances, it is impossible to class arts into well-defined genera; all we can do is to group by types, and if we adopt the same mode of arranging them as in previous cases, they may be arranged as this Introduction is written, thus,—

Physics,
 Anthropic Arts,
 Politic Arts— or Physics—Anthropic Arts—Politic Arts.
 or Physics
 Physics—Anthropic Arts—
 Physics—Anthropic Arts—Politic Arts=Medicine.
 Anthropic Arts—Politic Arts=Morals.
 Politic Arts=Religion.

Where medicine will follow in due succession to Physiology, on which it is based, and follow after the Anthropic Arts in the same line. Morals is not based, however, on any physical science, but is purely anthropic, though practised in the same way as they are. Religion is higher, and comes before the beginning of our tables or theology, but after nothing that is either physical or anthropic.

Another characteristic which seems to distinguish these groups of arts from the others is, that they do not appear—at least as at present practised—to be necessary to supply man's wants, to increase his natural powers,* or to provide for his gratification. Their fundamental idea seems to be the existence of evil, and the remedies to be applied to palliate or eradicate it. At the same time to enjoy health, to do good, and to worship in sincerity and with fervour, are as high, I would say the highest, gratification human nature is capable of, and are impossible, as enjoyments at least, without the existence or knowledge of the opposite state of mind. Still moralists ask, and puzzle themselves with, the question,—Why should evil exist? and though some plausible answers have been returned for some evils, the question is still more a theological than a moral one. In this our philosophers appear to be pretty much in the same position that the physiologists were a century or two ago, when, from their imperfect knowledge of the functions of the human body and its anatomy, they were forced to assume that one organ was a mere pad, another an ornament, others make-shifts or make-weights, without use or meaning. Bit by bit, however, they have discovered not only in man, but in all animals, the use of one organ or one vessel after another; and though it cannot yet be said that we know all the uses of all the parts of a living body, we know enough to be able to assert (till at least one instance to the contrary can be proved) that there is no part, or organ, or vessel in the

* Unless it be that Government is | carry out the division of labour to the
 merely an invention to enable man to | greatest possible extent.

healthy body which is not only required to perform some necessary function, but which is also the best conceivable contrivance for performing it, whatever it may be discovered to be. Physiologists now pursue their researches with the most unhesitating faith, in the full truth of this great discovery, and it is worth all their other discoveries put together. And when moralists can shake off prejudice and the trammels of metaphysics, they will begin to perceive that what is true in the natural world is so also in the domain of morals, and that not only it could not, but it should not, be otherwise than it is. And when once they apply their minds fairly to discover the uses of what exists, they will soon lose conceit of their utopianisms and silly schemes for making man otherwise than he is, and set to work to extract the greatest possible amount of good out of the unalterable condition attached to our existence, instead of wasting their time in speculating why things should be as they are, or still vainer attempts in fancying how they could be or we could make them better. Man was the same being at the beginning of the world as now, and exposed to similar evils, and will be so to the end of time. We cannot alter this, but we may make the best of it, and improve our condition to an almost unlimited extent.

MEDICINE.

As I said before, I am not going here to do more than indicate the position of the three groups of arts. Not because I think them less important than those I have just been discussing, but because I shall not have occasion to refer to them again in these pages, this work being wholly occupied by the groups of Technic, Æsthetic, and Phonetic Arts, whose principal divisions I have just pointed out. Were I writing an encyclopædia or an essay on classification generally, they should, I know, occupy at least as much space as the other groups, perhaps more; but not in an essay on the fine arts. Even then, however, I am very much inclined to think that the importance of the first of them, that of Medicine, in a scientific point of view, has been considerably overrated; perhaps from its boundaries not being correctly defined. It is not, and must not, be confounded with the physical science of Physiology, and never would have been, except that that science has been principally cultivated by medical men; though the one bears about the same relation to the other that astronomy does to the art of navigation; and I need scarcely say, that the

stars move in the orbits without much concerning themselves regarding the sextants with which sailors may be measuring their altitudes or the angles they form with one another. Nor is medicine Nosology, which is a scientific branch of Physiology; it is only the art of curing the diseases engendered in our bodies, or the hurts to which we are liable from accidents. Unfortunately these form far too important an item in the life of man, more especially of civilised man, to be lightly overlooked; and his happiness depends so much on guarding against them, or having the power to cure them when present, that it is scarcely to be wondered at that he should elevate this art to a higher grade than it is strictly entitled to.

But while I would separate from the art the sciences on which it is founded, there is one branch of it which is, perhaps, the most important of all, and which should occupy much more space than has hitherto been allotted to it. In insisting on those regulations of society by which intemperance and ill-regulated excess, either of indulgence or exertion, might be avoided; a more careful police, by which accidents might be prevented to a considerable extent; and more than these, the sanitary condition of towns or places where masses of men are congregated, not only as regards the great essentials of cleanliness and ventilation, and those appliances of exercise and recreation by which health is promoted and disease prevented; these would, I believe, have a more beneficial effect on the general health of mankind than all the drugs that ever were concocted; and an opinion to this effect seems now to be gaining ground. But this has hitherto been left either to the statesman or philanthropist, who, unless by accident he should happen at the same time to be a medical man, probably knows very little about the matter. We, up to this time, have always paid our doctors for curing diseases, not for preventing them, and, consequently, very little of this unprofitable Hygiene has been taught in our schools, or is to be found in our medical treatises.

Surgery is a second branch of the profession, the benefits of which are manifold and manifest. Men cannot live congregated in masses, as in thickly populated societies they are obliged to be, without being more or less exposed to accidents; nor can they perform many of the hard tasks which an artificial state of society imposes on its less fortunate members without deranging natural functions, which only the knife and the bandage or salve can remedy.

But whether medicine or pharmacy has done much for humanity is a question they best can answer who have practised it longest. But it has

been doubted whether the mistakes—which must take place in an art where so much is done in the dark—have not caused more mischief than it has effected good; and, after all, whether when you have cured the patient with drugs you have not merely discounted matters, and whether on the average the poison you have put in to drive out the other has not so weakened the constitution as to cause as much suffering afterwards as if it had been left alone.

But it is of little use reasoning upon the matter; men of all ages have, when ill, had recourse to drugs and their dispensers, and in all ages will probably do so.

Threescore years and ten were the life of man three thousand years ago, and we do not appear to have lengthened it by the wonderful discoveries in this art in the interval; nor does it appear that that portion of the community who have most recourse to the chemists' shops are the healthiest: but that physicians do something to alleviate the ills and sufferings of us poor mortals I willingly hope and believe; but surely not enough to elevate their art, as is too often done, to a level with the Physical Sciences and the triumphs of the human mind in the higher developement of art.

MORALS.

The various arts of Government form another group as important to the well-being of man as the last, and to a certain extent overriding it. As is shewn in the table, it is based on Ethics or Morals, in other words, the knowledge of right and wrong,—a science that comes after the three great divisions of Anatomy, Physiology, and Ontology, pretty much as the invisible chemical rays succeed the blue ones, beyond the end of the visible spectrum. But, notwithstanding its acknowledged importance, I know of none so imperfect as this. We all can talk fluently enough about right and wrong, or justice and injustice; but when we come to define in general terms what they are, or why they should be so, we are instantly lost in a cloud of indistinct verbiage, which proves nothing and leads to nothing. And though not only philosophers in the closet, but all the legislators of all countries since the world began, have been trying to find out what is right and what wrong, they do not yet seem to have arrived at any satisfactory or well-defined conclusion on the subject. True it is, that in nine cases out of ten all men agree; and yet this seems more the

result of a certain empirical experience of expediency than of any well-understood principle. The principle of the greatest happiness to the greatest number is a bold definition of what ought to guide a legislature; but it leaves behind it, and untouched, the essential principle of right and wrong, the innate, or more correctly the instinctive, feelings it gives rise to. Does it explain why we approve of the widow's mite and sneer at the rich man's donation; why we boil over if cheated of a shilling by a person to whom we would willingly give a pound if asked for it; or why we are consumed with wrath if a man touches us with the intention to insult us, but pardon instantly one that knocks us down by accident? The most horrible of all crimes is the murder of even our worst enemies in time of peace; the most approved of virtues is the murder of those who never did us harm in time of war. Take a shilling out of a man's till, and all society frowns upon you; ruin the same man by unnecessary and vexatious litigation, and it is a matter of business that no one cares to reprobate.

To account for these, and fifty other anomalies that occur at every hour, we must go higher than has hitherto been done. We must first get distinct notions of what virtue and vice, and good and evil, are as extremes of one scale. To insist on the absence of the latter, as some have wished to do, would be like insisting that the thermometer should always stand at sixty, and that we should always, and every where, have the light of noon-day. Without the gradations of heat and cold, and light and darkness, the affairs of the physical world would soon be brought to a stand-still; and in the moral we require more certainly the spur of evil than the blandishments of good to induce us to exertion and to enable us to fulfil the high destiny for which we were created. I wish those moralists who grumble so seriously at the existence of evil would explain how the world would get on were one iota of it abstracted, unless they were at the same time prepared to reconstitute man and all the world on some new plan of which I have not the remotest conception. How, for instance, admitting food to be absolutely requisite for man's existence, they would induce him to take it regularly without the evil of hunger; or if the pleasure were to be so great as to be a certain inducement, how they would stop him without the evils of repletion; or how, if man were made invulnerable and exempt from pain and disease, they would restrain him from committing every enormity that we can conceive, and others to which such a state of things would lead, but of which fortunately we have no conception. My space, however, will not allow me to pursue the argument further than to define, that the

science of Ethics must not only include a knowledge of what is good and what is evil, or, in other words, what is right and what is wrong, but also a knowledge of the uses and purposes of evil as well of good ; doing this not only with reference to civilised man in particular instances, but with reference to all created nature and the whole constitution of the world. If any such attempt has been made, I am ignorant of its existence.

The function of the legislative branch of government appears to be merely to discover, to discuss, and to enact in the form of regulations and laws, and for the guidance of the executive, such discoveries as they may make, or fancy they make, in the natural science of Ethics. In despotic states this is managed simply enough by employing one man to enact the laws, under the influence nevertheless of public opinion, however expressed, and always with the assistance of some sort of counsel or other. In representative states the machinery is infinitely more complicated, and, judging from the results, infinitely more perfect ; and though living in the midst of the process, it is difficult to abstract the mind so as to form a correct estimation of the result. But there can be no doubt that we have lately made immense strides in the right direction ; and though I do not believe that human laws will ever be any thing else but a clumsy helpmate to the operation of the great laws of nature, still, in an artificial state of society, they are absolutely requisite to enable masses of men to live together, which without them would be impossible. As far, however, as the mass of mankind is concerned, governments, as at present constituted, must leave entirely out of consideration the whole class of rewards and inducements, and act only through repression and punishments. And even then one of the first principles of our legislature is, that government should never act or interfere where it can avoid it. But let it act as it will, no human laws will ever enumerate more than one in ten of the offences which daily take place against the laws of nature, or reach even that proportion of the offenders against even the written laws. However vigilant and excellent your police may be, it is clear that at least nine in ten must escape the punishment the law prescribes to their offences ; and were it not that there is a law beyond our law, and whose operation no man can escape, the business of the world would soon come to a stand-still. But nothing appears more certain than that right never was unrewarded, wrong never unavenged ; and that, sooner or later, whether through the agency of man's laws or by the operation of an invisible Nemesis, the offender is certainly overtaken by the punishment due to his offence.

It is, of course, not easy to see how this is the case in all instances, though in most a more careful analysis than is usual would probably reveal the truth; and in many cases it is easy to quote examples in which they appear not to be the case; for the variations are infinite; and if there were not scope there could be no free-will. But what can appear more various and uncertain than the duration of human life, yet on a sufficient number of instances we can calculate its duration to a fraction? What more uncertain than the rain and the temperature, yet on a sufficient number of observations there is no perceptible variation? And my own belief is, that a careful register would enable us to detect many moral laws that now appear only confusion and the operation of blind chance; and it is on such observation only that we can hope to reconstruct the science of Ethics, and thus form a rational basis for the art of Government.

This done we shall have laid the foundation-stone; but it appears then requisite to grant a power or faculty of knowing,—or, as I would express it, a sense, or instinct, of right and wrong peculiar to man,—which would take the place in this science which the hand and its muscles did in the Technic division, or the power of speech did for the Mental; and lastly, we must admit the power of the combined intellect of a man to direct this as the other faculties; and to enable him not only to use it profitably, but to multiply its powers, and to record and perpetuate it so as to make it capable of that increase and progress which are marked as the distinguishing characteristic of the two other great divisions.

Without going into the minuter subdivisions, there are two great ones which are sufficiently distinct and intelligible if government were divided into the executive and legislative. An instance will, perhaps, best illustrate what I conceive to be the theory of the former. The legislature of Mississippi proposed the other day to abolish all laws relating to the enforcement of the payment of debts, and generally all interference of the government in the debts and accounts of its subjects, on the plea that if this were done no man would be trusted who was not honest, and every man would then be careful to whom he lent his money; and thus all would be able to protect themselves, while honesty would be encouraged, and the dishonest starve. The same reasoning might be applied to robbery. Government might decline to interfere to punish thieves, on the plea that men would then shut their windows, bar their doors, and watch who came in and went out; and thus thieves would starve, and all trials and litigation from this source cease. And the same reasoning

might be applied to murder, and, indeed, to all crimes, and every man be left to be his own judge and defender. The beasts and savages manage matters pretty much in this fashion; and in the middle ages (say the twelfth century) something very similar existed in many states of Europe, or would have existed but for the Church, where every man collected his own debts, and defended his own life and property; and, by the same token, the law of the most strong prevailed throughout the land, and crime and oppression pervaded every corner of it. Since that time a gradual change for the better has been taking place, principally through the introduction of the subdivision of labour, by which a certain number of citizens are set apart and paid to perform these functions, as judges, magistrates, and police, internal and external; and not only do these men, by being able to devote their whole time and lives to it, do it better than every man could for himself; and so far has this division of labour been carried in the more civilised states, that it is found that one man in a hundred so set apart, either to form the civil police, with its judges, magistrates, and all their subordinate officials, or the generals, officers, and privates of the army, is quite sufficient for all purposes required; and the remaining ninety-nine are left free to follow whatever occupations are most convenient to themselves or beneficial to the state. I need not add that under this *régime* our causes are better judged, our lives and property better protected, and the peace of the world better preserved, than under the old plan of every man performing all these functions for himself, to which the American legislature would recommend our returning.

After providing, by internal regulations and police, for the security of persons and property, one of the principal occupations of all governments is, and always has been, to prepare for or conduct wars; but whether this is to continue so is not quite clear. Some—enthusiasts, I fear—fancy wars will cease in an everlasting peace, but there certainly does not appear to be any tendency that way at present, or any thing that would lead us to hope that such were possible; but during the last six centuries there has been a gradual and steady tendency towards confining wars entirely to the military, men paid for the purpose, and accustomed to look on it and its chances as matters of routine business. In the middle ages every man was a soldier, every town or mansion a fort or fortress, and war was everywhere and at every man's door. But through steady progress in carrying out the great problem of the division of labour, this has, in a

great measure, been remedied, and might be still further ; and if no towns were fortified, or only by detached forts, and discipline more strictly enforced in war, and armies obliged to support themselves, war would lose half its terrors for the peacefully inclined, and at the same time half its charms for the more bellicose part of the community.

RELIGION.

I have now reached the last of those divisions into which the classification has led me to arrange the science of Anthropics, and besides being the last, it is the highest and most noble. Like all other arts, it is only the elaboration by man of a science, and in this instance that science is Theology, with which the table began. Here, as there, I assume the existence of a Deity, not only from my own reasoned conviction that such is the fact, but because no nation exists, or has existed, without such a belief ; and were it otherwise, it is, in speaking of Theology, not here that I would adduce any argument I might have to bring forward on the subject. At the same time I am perfectly aware that many deny such existence, but such infidelity, in many cases, exists as a form of vice in men who shun the responsibility of their own acts, and would willingly disbelieve that they might thus hope to escape the control which such a belief implies. But a far more common cause arises when a priesthood insist on men's believing in a religion suited only to an ignorant or barbarous people : such was the case in Rome during the Empire, when the best men were revolted by the absurdities of the heathen religion ; and such the case in France during the last century, when the best and most intellectual minds turned in disgust from the mummeries, the false miracles, and falser legends, which the priesthood insisted on calling Christianity. And when the good disbelieved, the bad too eagerly caught the example ; and the revolution was the solution of what ever must be the greatest curse that can befall a nation—a religion behind the intellect of the age, and a priesthood trying to supply its place by antiquated ceremonies and obsolete beliefs. To some such state we, too, are tending, if a certain party in England be allowed to have their way ; but let us hope a better fate, for it is not yet too late. Still without some loftier and nobler conception of religion than is now generally prevalent, the fate of society trembles in the balance ; it scarcely elevates the less educated classes, and the more intellectual even

dare to look down upon it. Society wants some loftier aim, some object which can be a loadstar upon all its designs, and give to mankind that greatness of purpose which can bind them together, and give unity and greatness to all they do. Without this, science scarce dares to pursue its great object with that singleness of purpose which can alone lead to great results, and either shrinks abashed at its own boldness, or becomes inflated with pride on its own assumed self-sufficiency.

It was the possession of this great aim that gave to the arts of an ignorant and semi-barbarous people in the middle ages that perfection and that beauty before which we bow in reverence, but can scarcely even now comprehend; and it is the want of it that makes our arts, with all our knowledge and all our power, a mere plaything—a luxury, to amuse and distract, to please the passing hour, without any higher aim, and attaining no higher object.

And shall it be said that all the progress and all the improvement of the last three centuries have only served to deprive us of this great motive and aim—to lower our conception of the Deity, and to enfeeble our faith in religion? If it were so, our knowledge would be, indeed, a curse, and we had far better return to ignorance and barbarity than remain thus. But it cannot and must not be so. Every advance of science must be used to enlarge our conception of the Deity, and to shew the beauty and perfection of His works—to elevate mankind towards Him, and at the same time to shew how utterly insignificant and powerless man is of himself, and how dependent on Him that created and now sustains him.

Man certainly has no nobler attribute, nor any one that distinguishes him more essentially from all other created beings, than this knowledge of the Divinity, and can follow no higher aim than in trying to extend and perfect it. He can undertake no higher task than in trying to honour the Deity by such means as are in his power; and he can perform no healthier function than when he kneels periodically before Him in worship, and acknowledges in proud humility the greatness of God, and his own comparative insignificance.

I have now concluded all I had to say, here at least, on the classification of human knowledge, having run my fingers—perhaps somewhat carelessly—over all the notes of the scale; and though I cannot flatter

myself that I have settled the question as to how it should be done, I think any one who has carefully followed me through the preceding pages will acknowledge that I have pointed out new relations, and opened up new views of the relative affinities of science and art, which I cannot but think clear up many difficulties in understanding them, and must be of the greatest use in studying the great question treated of. Be this as it may, it will be seen that we have been walking in a true encyclopædical circle, having commenced with Theology, or the knowledge of God, and ending in Religion, as the last and the highest attribute of man, falling into the first by such insensible degrees that it is of little consequence where the study of the tables commences: for beginning either with Astronomy or Anthropics, or any where else, the student will be led round to where he started from without any breach in the sequence; and the series comprehends—or, at least, may be made to comprehend—the whole statical knowledge possessed by man.

The remaining division of Anthropic sciences, consisting of Human History and Anthropic Geography, follows here of course in the classification, and to them the remainder of this work is dedicated. In a classified encyclopædia they should succeed in immediate juxta-position, but before proceeding to them it will assist in comprehending the subject if we pause to recapitulate the results of the above classification, and to extract from it some of the maxims that should guide us in our future investigations.

P A R T I I I .

SECTION I .

ON BEAUTY IN ART.

FEW things have been more frequently attempted than to define in what "beauty in art" consists, and certainly hitherto with singularly little success; one of the most prevalent sources of error being the assumption that beauty is one single and well-defined emotion, and capable of being reasoned on as such: whereas, in truth, nothing can be more various, and at the same time more universally prevalent; and so variously are we formed, that to no two men is it the same thing, though all can perceive it, and most men fancy they see it as others do: like the rainbow which a crowd are gazing at, they fancy they are looking at one object, while no two pair of eyes can see the same bow; so each man assumes the beauty he sees or can appreciate to be the only true one, and excludes all others from the category. He is right, and all men are right, so far as they are individually concerned; but we must ascend higher, if we would deduce general laws on such a subject.

If the above classification has been understood, and its general principles admitted — even though its details should be cavilled at — we shall have no great difficulty in accomplishing this, and in arriving at a correcter definition of the subject, and consequently we shall be able to apply more definite rules of criticism to a work of art than has hitherto been possible.

Beauty, in the first place, means perfection; for whatever is perfect is beautiful in the eyes of those who understand it. A sailor sees beauties in a class of ships, a jockey in a race of horses; while to the common observer these look only like the common, every-day forms of these objects. A mechanic is enchanted with the ingenuity of some new machine; an astronomer is enraptured by the beauty of some new instrument, in which

most men would see only unintelligible complexity ; an anatomist searches for and finds beauty amidst death and putrefaction, from which most men would shrink in horror and disgust. All these are beauties ; but in most cases perfection can only be called technic or mere mechanical beauty, admirable in itself, and the highest class of beauty to which a mere useful, or, as I have called it, a mere technic art can rise : but in no instance can it be said to elevate the object out of the class of useful into that of the fine arts.

A second class of beauties are the æsthetic or sensuous beauties, which do effect this whenever they are properly employed, and, when combined with technic perfection, constitute a very large and noble class of fine arts. They are, however, as I before remarked, capable of beauty without this combination : as, for instance, an arrangement of colour may be hideously ugly ; the same differently arranged, eminently beautiful. One arrangement of the notes of music produces a frightful discord, another the most exquisite harmony ; and this without our being able to say that the one is more perfect than the other — merely that the one is harmonious, or so arranged as to give pleasure to the senses, while the other is not.

A third and the highest class is phonetic or intellectual beauty, which may be presented to the mind by mere words or conventional signs, without enlisting either the æsthetic or technic arts to assist it ; but the most perfect work of art will be one that combines all three classes, but it must rank higher as an utterance of fine or high art in the ratio in which the phonetic predominates over the æsthetic ingredient, or that over the technic one.

Between these three, which are the only ones I have thought it necessary to circumscribe or define, there are, of course, innumerable gradations and shades, and nowhere can the line be distinctly drawn between one class and the one next to it either way ; still they are, so far as my analysis goes, the three great types of beauty, and I have not found any other requisite in attempting to judge of any work of art that has been presented to me. They must, however, be looked upon only as genera, including innumerable species, which it may be useful to define hereafter, but not at the present stage of this inquiry.

To make this clearer, I have taken a dozen arts at random out of the tables, and, assuming their perfection or merits to be divided into twelve equal parts, I have arranged them under the three classes of beauty to

which I conceive them to belong, without, of course, pretending to any thing like minute accuracy. Thus,—

	TECHNIC.	ÆSTHETIC.	PHONETIC.	
Heating, Ventilation, &c.	11	1	0	= 13
Joinery . . .	9	3	0	= 15
Gastronomy . . .	7	5	0	= 17
Jewellery . . .	7	4	1	= 18
Furnishing . . .	6	5	1	= 19
Clothing . . .	5	6	1	= 20
Céramique . . .	5	5	2	= 21
Gardening . . .	4	6	2	= 22
Architecture . . .	4	4	4	= 24
Music . . .	2	6	4	= 26
Painting . . .	3	3	6	= 27
Drama . . .	2	2	8	= 30
Poetry . . .	—	2	10	= 34
Eloquence . . .	—	1	11	= 35*

Thus I conceive a perfect object of Gastronomy to consist of 7 or 8 parts of plain hunger-satisfying food, and 4 or 5 of palatable ingredients; in Jewellery, that 7 parts are made up of mechanical excellence of execution, 4 of beauty of form or colour, or some such, and 1 in expressing a meaning, which it can do to a small extent while the former art cannot. Furnishing and clothing depend rather more on the æsthetic quantities for perfection; but though they may express grief or cheerfulness, and such-like emotions, to a certain extent, in this respect they are scarcely in advance of the former. Gardening, on the contrary, may express gloom or grandeur, or elegance and gladness, more distinctly than those arts, while it does not depend so much on technical perfection, but more on its æsthetic qualities of scent, form, or colour. Pottery and glass-ware, though so entirely different in form from gardening, unite the three kinds of beauty in nearly the same proportions. Architecture, on the contrary, when perfect, unites the three classes in as nearly as possible equal proportions, which to my mind is one of its great perfections as an object of artistic study. In Music, though the æsthetic element is the predominant one, execution is also an important element, but not so much so

* Any other set of figures would do as well as these; and, indeed, the proper mode of representing it would be by algebraic signs representing any set of figures that might afterwards be adopted.

But this would be presuming too much at present; these figures are simple and easily followed, and therefore sufficient for my present purpose.

as its phonetic powers of expression. In the Drama—I mean, of course, as represented—the highest mode of utterance is by far the most important, but the two lower ones are also essential to perfection. Poetry cannot be said to require, or indeed to be able to use the technic mode, but music is an ingredient it can scarcely dispense with; and even the highest eloquence is aided by musical harmony, though, of course, in less degree than poetry: indeed, it cannot be said to be essential, but it is an aid to perfection.

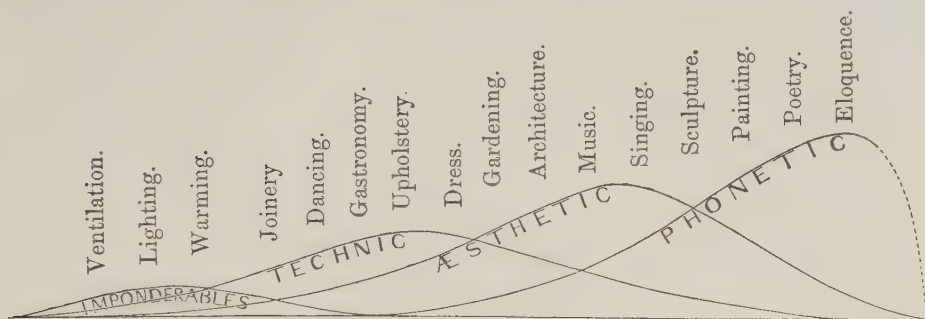
If we multiply the figures in the first column by 1, in the second by 2, and in the third by 3, we shall gain a quotient, which will very nearly express the relative value of any class of works of art. By such a scheme the lowest number will be 12, which will express mere technic or mechanical perfection in a work of art which does not attempt an æsthetic or phonetic form, though few perfect works of any kind can be quite devoid of something of a higher class of art, and 13 or 14 is, perhaps, the lowest figure ever practically existent. At the other end of the scale 36 is the highest figure possible, but that is, probably, unattainable—practically, at least—and has hitherto been unreached; indeed, though I can fancy a work as high as 34 or 35, I cannot name one that has reached that figure. To exemplify this I have carried out in a fourth column the results, to shew what is meant, though I cannot expect that many will agree with me, and few can have the same idea as to what a perfect work of art in each class is, to which alone the table refers, while, in criticising any individual production, it will always be necessary to analyse the amount of each class which it may contain. Thus many pictures or statues lay no claim to being phonetic utterances, as representing mere inanimate objects, such as furniture, fruit, &c.; and frequently their forms are so ungraceful, and the colours so inharmonious, that their proper description would be 8, 9, or 10 technic, and 4, 3, or 2 æsthetic: if the last, they would rank as works of art below a good *soufflet* or a *vol-au-vent*, where I certainly should class many of the pictures annually exhibited in London. The greater part of modern pictures aim at æsthetic perfection of outline or colour, and few are without technical excellence of some sort; and when they attempt also a phonetic expression, they may range upwards from 18 to 22, but I do not know any modern painting that even proposes to itself a higher object of ambition than such numbers as 4T, 6Æ, 2P=22, or at the very utmost 24; it is only among the very highest class of pictures of the Italian school that we can look for

any thing beyond this. The Dutch school, on the contrary, most generally aims at mere technic merit, seldom attempting the æsthetic, though in some instances the painters attempt a rude and quaint mode of phonetic utterance.

If we apply the same numerical mode of criticism to buildings, we shall find that such as the Pyramids of Egypt—though technically magnificent beyond all the buildings of the world—have very little æsthetic, and scarcely 1 of phonetic value. The great temple of Baalbec—and, indeed, the greater number of the Roman temples—I should feel inclined to class as 6 for the mechanical excellencies of size and construction, 4 for beauty of form and detail, and certainly not more than 2 for any expression of religion or intellect they may possess, making up 20 for their artistic value. Cologne Cathedral may be expressed as 5, 4, 3, or 22; Rheims, or indeed the *beau idéal* of a Gothic cathedral, as 5, 3, 4, or 23. The Parthenon at Athens is perhaps the most perfect building we possess; and its technical merits I assume in consequence as 4; its beauty of form and colour, assuming the latter to be restored, as 4 also, and its phonetic expression, not only through its technic and æsthetic perfection, but also by means of its purely phonetic sculpture and painting, to be of about the same extent. I can, at the same time, easily fancy a building so completely devoted to the exhibition of painting and sculpture, such as a mausoleum or monument, or fountain, for instance, where the phonetic mode of expression would so completely predominate as to give it a higher value in the classification than 24; but then I should be inclined to class it with sculpture or painting, not as an object of architecture, which must here have become a subordinate art.

The same mode of criticism may, of course, be applied to all the other arts, but I have said enough to explain what I mean, which is all that is here required, as the application comes in a future part of this work, and till the subject is much better understood than it is at present, it is impossible to apply any such formula with that precision which alone could render it of value in discriminating the various merits or value of works of art. There is, however, no individual specimen to which I have not been able to apply it with satisfaction to myself, nor any set of figures, either in the table or which can be compounded out of it (except, perhaps, the highest), to which it would not be possible to assign a work of art which shall be its equivalent. Its value, however, will be better understood as

we advance ; in the meantime so important do I think it for the correct understanding of the subject, that before leaving it I must make another attempt to make it clearer by the annexed diagram, which is an attempt



to represent mechanically the table page 140. On the left is a low curve for the Imponderables, which, however, runs some way under the technic, and the æsthetic curve loses itself about the centre of it. Thus they may be united with the Technic or Æsthetic Arts, either in distinct portions or fading into one another by infinitesimal shades.

The next, or technic curve, extends from one end of the scale to the other ; and the arts I have written over it possess, besides their technic value, the æsthetic property as nearly as I can represent them in the proportion indicated by a section of the diagram immediately under each name, the phonetic curve entering only at the upper end of the scale. The same remarks apply to the next, or æsthetic curve, where it will be seen that Architecture stands over equal portions of the technic and phonetic curves, though, owing to the imperfection of the diagram, it has a double amount of æsthetic expression assigned to it ; and Music, though ranking higher as an æsthetic art, has less of the technic ingredient ; and Singing, though more phonetic, has less of either of the other two. The fourth, or phonetic curve, extends to the middle of the technic, (which, however, fades away before reaching its highest utterances,) though the æsthetic extends quite to the end, but occupies only a very small space under the arts which I have placed at this end of the scale.

As these are the only classes of art with which I am now occupied, I have brought down the phonetic curve abruptly, by a dotted line, to the end of the æsthetic one. But to represent it perfectly, it should extend to the right to the same distance as it does to the left, from its highest point at Eloquence ; and a fifth curve for the Politic Arts—or,

perhaps more correctly, three more curves for the three branches of politic arts—ought to rise in the same succession beyond it, as these three do beyond the Imponderables ; for, as I said before, I believe that in them, when properly cultivated, reside the higher aspirations, towards which mankind have yet to strive. I have not, however, added them to the diagram, as I fear the meaning of such curves would scarcely be understood, and I know that the arts in question, in their present state, have no title to such lines.

When, however, we look back through the history of mankind, we find the Egyptians, with an almost purely technic civilisation and form of art, scarcely dreaming of the æsthetic form ; the Greeks, on the contrary, rising into perfection in the expression of sensual and æsthetic beauty, but without suspecting the existence of a higher and more purely intellectual mode of utterance. We should not be surprised that, though we have reached, or are reaching, the phonetic height, we scarcely can form a distinct conception of any thing lying beyond. I think I can, however, trace distinctly the outline of one or of three mountains beyond, and higher than the highest pinnacle to which we have yet attained ; and though it may take thousands of years before man can even climb to their summit, much less explore and map them out satisfactorily, they are there ; and when they are reached, though I cannot now conceive the possibility of a higher than the last, he that stands on its summit may see ridge on ridge extending beyond and above even this, into the sublimest infinity of space.

Besides these three great divisions of beauty in art, there are some of the minor gradations to which it may be well to allude before leaving this branch of the subject ; one of the principal of these is association, a form of phonetic utterance which throws a veil of beauty over some objects in the minds of particular persons, which to others appear only commonplace, or even ugly. The scenes of our childhood, or places where we have dwelt happily, are always beautiful in our eyes ; and we may even educate ourselves by association to admiring flat, plain, or barren moors, more than the most picturesque or sublime scenery, which our reason tells us is far more beautiful, though we cannot feel it. Simple melodies in music often appeal more forcibly to men's feelings than the most elaborately concerted pieces, when we associate with them some recollection of times and places where we have heard them. And in all countries there are national melodies, strange and often monotonous to the ear of a foreigner,

which to the native produce an effect unequalled almost by the highest inspiration of poetry.

In architecture, we acknowledge no other beauty at the present day, perfection and harmony being entirely thrown aside, while we associate beauty with a Doric or Corinthian column, or a Norman pier or Gothic arch, and wherever we see them,—or even see them literally and correctly copied, we are pleased, and think the object beautiful; but the smallest deviation from the model offends our eyes, and we can see no beauty in the originality. Yet these styles are so essentially different, both in principle and detail, that if one is right, the rest must be wrong,—if, indeed, all are not so: but this we do not think of, and we find the same architect forced at the same moment to build correct buildings in all the styles, thus contradicting himself every hour; and all men of taste (so called), in like manner, insisting on this literal repetition of forms with which they associate beauty, merely because in other times they produced it, though under other circumstances and for other purposes.

It is not, however, unfortunately, architecture alone, but all the arts, from the highest to the lowest, that have been cursed by the influence of this lowest and most unreasoning source of beauty. Poetry, till very lately, was almost as completely subject to it as the rest; and had not Shakspeare lived before their subjection, he might have fallen, as Milton did, beneath its enslaving tendency: and all the poets from that time till the end of the last century are more or less tainted with the Greek and Roman servitude. Literature is now emancipating herself from these trammels, but, like all long-enslaved communities, her first steps in the path of freedom are wild and uncertain, and we have yet a long apprenticeship to serve before we can be trusted with our liberty, or use it rightly.

Sculpture is entirely enslaved to some mysterious idea that the Greeks, and they only, could excel in this art; but the fortunate destruction of the paintings of the ancients enabled that art to become a Christian utterance: but even this has not escaped with us; for we must needs thrust our necks under the yoke of Italy or Holland, and can find beauty only where we can associate it with what is beautiful in their or some other school. And even down to furniture, crockery, or jewellery, with us the one source of beauty is association; and though I am far from denying its beneficial influence on art when properly used, it is, at best, only a slavish and retrograde source of beauty, in every respect inferior to those derived

from perfection and harmony, or imagination, which are always noble and legitimate objects ; and when the aim is to produce them, the result must be not only pleasing, but elevating ; and the art that is subject to their influence, and to it only, must afford high intellectual gratification to its professors, and all who understand it, and be gradually progressive towards higher and better things.

Though these may be the principal sources of beauty, there are, no doubt, many smaller ones which arise when we come to analyse closely our particular emotions. In speaking, for instance, of the beauty of the human form, three-fourths of it, I am convinced, arise from the perfection we perceive in the adaptation of the means to the end, whether for bodily strength or intellectual power ; but there is also harmony of colour and of form, there being no rude and hard outlines, but a gradation and blending together of all the parts, and also a harmony of purpose : for in nature we do not see the head of an Apollo on the shoulders of a Hercules, nor the reverse, and any attempt to mix such discordances together would offend in art even the most uninstructed eye. Besides these, however, there is a certain sexual instinct which makes man look on and admire woman, and woman see beauty in man, which is not referable to either of these sources, but to a separate feeling, which, like many others, either heightens or interferes with our perception of beauty derived from other sources.

It would be absurd to attempt any definition of beauty which would exclude this, or any other source from which the emotion may be derived ; but at the same time, it would be tedious in the extreme to attempt to define and point out all these gradations, unless when speaking of particular works of art. All, I believe, may, when analysed, be classed under the heads of technic or mechanical beauty, sensuous or sexual, or, as I have called it, æsthetic perfection ; or, lastly, as phonetic or intellectual beauty, meaning thereby all that gratifies man's highest mental powers, whether through association, or spontaneous emotion in the voluntary exercise of his imagination or reason.

SECTION II.

THE SUBLIME IN ART.

THE emotion of sublimity is in the abstract totally distinct from that of beauty, though both may be combined ; and when we can say of a work of art that it is sublimely beautiful, we use the highest praise that language can bestow on any artistic utterance : except, however, in the highest regions of poetry, it is seldom attained.

What is meant by it will, perhaps, be best understood by examples. In sculpture, for instance, the Laöcoon is, if anything, sublime, but has little beauty. The Venus de' Medici is merely beautiful, without one spark of sublimity ; the Apollo Belvedere, perhaps, combines the two in as nearly equal proportions as almost any work of art. There is in it, besides the beauty of the mortal, a certain tinge of the divinity, which must always be sublime ; and such a higher feeling on the part of the artist might have been more apparent in this work than it is.

In painting, beauty is the prevailing characteristic of Raphael's works ; sublimity of Michael Angelo's. There is that power in the Sistine Chapel that awes the spectator into a feeling of sublimity as if he were looking at the works of giants rather than of men. But there is more of sublimity in the " Transfiguration " and the " Madonna di San Sisto," than there is of beauty in any of the works of his great rival.

In architecture, the Pyramids of Egypt are sublime for their size and their situation, and the mystery that attaches to them as the oldest works of man now existing, but they have not one atom of beauty about them. The Parthenon is, perhaps, the most beautiful of buildings, but has neither the size nor expression of power requisite for sublimity ; nor do I think it affects it, nor that its builders wished to create any such impression. But be this as it may, many of our mediæval cathedrals are more sublime, though none of them are so beautiful as the Parthenon is.

In nature the lines of demarcation are as distinct as in art, many scenes and objects being expressive of one emotion or the other separately, and many combining the two in equal, or slightly predominating proportions. Sinai, or Horeb looking down on Petra, are sublime, both for character and association, but without a trace of beauty. The banks of

the Wye and much of our own English scenery are eminently beautiful, but without one trace of the sublime. In Switzerland the pastoral valley, with its lakes and hamlets, combined with the mighty snowcapped mountains, produces that perfect combination which is most beautiful in nature, and ought to be the highest aim in art.

An ocean in its wide expanse combines the two, perhaps, as much as any object in nature; but when tossed by the tempest, at least to those exposed to its violence, the sublime so far predominates, that its beauty, for the time, is lost in the more overpowering emotion.

In short, whatever awes or overpowers the human mind is, or at least may produce, the emotion of sublimity, if it does not go so far as to prostrate its power. Terror and such-like emotions are too painful and humiliating to produce it; but whatever is great in conception or in utterance may do so, provided it is not so overpowering as to take away our power of calmly contemplating the emotion, and feeling secure against its ultimate effect on ourselves: in the same manner that we enjoy a tragedy on the stage that in our own homes would be mere misery. In the one case we wish to enjoy it again and again, in the other its recurrence might destroy our reason.

If these views be correct, it is evident that beauty and sublimity are two totally distinct classes of sensation, either of which may be enjoyed without the other; but combined together, in any of man's works, art has reached its acmé; and the sublimely beautiful is the highest intellectual sensation that man is capable of. Few, very few, and those only the greatest minds that have existed, have been able to effect this great combination; even those that can appreciate it when effected are far from numerous. But there are many degrees in this as well as every thing else; and though a higher grade of it may yet be reached than has hitherto been done, it fades into simple and even sensual beauty by such insensible gradations, that all at least may approach the throne of the divinity, though, like Semele, few can bear the splendour of the actual presence.

SECTION III.

REQUIREMENTS OF ART.

ONE other result of this classification I must point out before proceeding further ; which is that no art is, *ipso facto*, entitled to be called a fine art, whilst, at the same time, there is no one that may not become so by proper cultivation. For, if there is one point which is clearer, or which I would insist on more than another, it is that all the fine arts are based on and grow out of useful ones ; and that in no single instance is it possible to say where the one begins and where the other ends. A weak or vulgar-minded man, though attempting the highest branches of historical or poetic painting, will produce a work that should only rank in the useful arts of house or sign-painting ; and, on the contrary, a mere decorative painter, if his hand be guided by feeling and taste, may produce a decoration that as a work of art is worth more than half the paintings annually displayed at our exhibitions. It is not the form of a work of art that gives it value, but the thought that is bestowed upon it ; and I believe it may be safely asserted, that a work of art is valuable in the direct ratio of the quantity and quality of the thought that it contains. Many Dutch pictures, for instance, are valuable only for the former attribute. We admire the pains with which velvet or satin is imitated, the care with which every article of still life is reproduced, the glasses, the furniture, the vegetables, or fruit ; or, if the scene is out-of-doors, the leaves on the trees, or the cattle : in short they attempted, and with wonderful success, to reproduce nature by patient, painstaking fidelity, but with about the same quantity of mind as is required by a camera obscura to produce a daguerreotype. On the other hand, we possess certain sketches by Raphael and Michael Angelo, made with a pen or piece of chalk, without, if I may use the expression, any labour at all ; but these few hurried, careless scratches do express an idea sometimes of the highest quality, and which now reproduce an emotion of beauty which all the art of a Mieris or a Metzger never could pretend to. There is a medium between these two where perfection is found ; but it is in vain to hope that teaching will enable a vulgar-minded man to produce any thing which will not be more or less tainted with his vulgarity ; and, at the same time, whatever is done by a pure or poetic mind will bear the impress of his feelings, how-

ever humble the art may be to which the object belongs. If a lady nowadays wants an armlet of wreathed serpents, she goes to her shopkeeper jeweller, and he intrusts the commission to his journeyman workman; in course of time a work is produced, whose value is estimated, first, by the weight of metal it contains, secondly the number of days employed on it at so much per week, and then the profit the conscience of the shopkeeper allows him to charge: but though its weight made it too heavy to wear, and though a year's labour had been bestowed on its production, it never could be other than a circlet of dead worms, and utterly valueless as a work of fine art. Place the same commission in the hands of a Raphael, and you will have an animated group of graceful beings that you could love, in spite of the primeval curse. Were it intrusted to a Michael Angelo you would have an entorted wreath of damned monsters, writhing in agony with restless energy, and forming an ornament a Medusa might delight to wear, but which would give a modern beauty the nightmare for a month. But, however rude and careless the workmanship might be, the two last would be productions of fine, perhaps high, art, and valuable as such, while nothing would entitle the former to that distinction. Little minds cannot produce great things, nor vulgar minds elegant things; but even great minds cannot produce great things, except on a great field and in the one direction to which the principal bent of their genius is directed. If Raphael and Michael Angelo had, as assumed in the above example, been condemned to work as jewellers, they would have produced beautiful things, it is true; but they would have fretted and frittered away their great conceptions, which could only find an utterance in the noble paintings they executed. Had Shakspeare not fortunately become connected with the theatre, but had merely to find an utterance in sonnets and minor poems, or had Milton been condemned by circumstances to prose, both would before now have been forgotten; and when Raphael and Michael Angelo tried architecture, which both did, the works of the one were characterised by feeble elegance, the other by powerful vulgarity; both displayed only the weaknesses of their minds, and were easily surpassed by the Peruzzis, Palladios, and many others, who, with not one-half their power of poetry, followed in this the peculiar bent of their idiosyncrasy.

It appears, therefore, that to produce a work of art it requires first, on the part of the artist, a certain turn and aptitude for that peculiar class of works which he undertakes; and if to this he adds genius, his work will be characterised by power; and if he possesses besides elegance of mind,

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that quality too will not fail to shew itself in his production, or their absence to be remarked : for no teaching and no practice can hide the want of them, nor on the other hand supply their place. We have hitherto been too prone to fancy that drawing and colours were the things wanted to make painters ; and it is true, it is, and must be as disgraceful in an artist in the present day not to possess them, as it would be in a poet not to be able to spell or write decent grammar. But neither spelling nor grammar will make a man a poet, nor his book being got up with the best types on the best paper, and bound first style : these are pretty adjuncts and make pretty books, but to last or to be entitled to a place among the works of art, thought is wanted, and it is the thought alone which they contain that makes either valuable.

If drawing and colours were really of the immense importance to painting that they are generally supposed to be, it would follow that in most cases a copy would be of equal value with an original painting, but every one knows how very far this is from being the case. I saw, for instance, not long ago, a copy of the " St. Catherine " in the National Gallery, so minutely exact in every detail of drawing and colour, that had the two been hung in similar frames side by side, I do not believe it would have been possible for any one at the distance of ten or twelve yards to have said which was by Raphael and which the copy ; and yet the one was sold for and was dear at thirty guineas, the other cheap at three thousand, though, as far as drawing and colour were concerned, the one was very nearly equal to the other : the true difference of value consisted in this, that the one was the work of a vulgar, painstaking mechanic, and would not bear inspection without betraying at every point a total absence of thought and mind, the other was the production of genius of the highest order, and of one of the most refined and elegant minds that ever existed ; and every line and every touch in the picture are but the reflex of that man's *divinior aliquid*, which no lower order of mind can reproduce or can even comprehend.

If any one will think how much of any painting may be expressed in mere words which do not pretend to have the smallest possible resemblance either in form or colour to the thing represented, he will perceive how easy it must be for an art, which always must represent the thing better than words can do, to reproduce the idea ; or, to take a less abstract example, if we look at any of the old paintings that adorn the walls or windows of our cathedrals, we find the drawing so infamous, that it is often difficult to tell whether it is a man, or a woman, or a monkey, that

is intended ; they are sometimes the strangest attenuated atrophies that a distorted imagination could conceive ; they live in houses half the size of themselves, and possess a set of domestic animals that would frighten even a geologist ; and as for colour or perspective, one can only say that they are worse than the drawing. They have, in short, no technic nor æsthetic merit, yet they repeat their narrative and express their poetry with a distinctness that few modern works ever attained. We are attracted by these vile productions, gaze on them with pleasure again and again, and are even sometimes awed by a certain feeling of sublimity that steals out of their ugliness. And why is this ? — simply that the men that did these things were earnest and religious men, and in spite of their untechnic art they expressed their conception of grandeur and of holiness in a manner that must speak to the heart of man in all ages ; whereas, in spite of all the perfection to which the mechanical processes of art have been carried in our days, there is an absence of mind in its productions that renders them vapid and powerless ; and though they may for the time please the conventional critic, they speak not to the heart, and can touch no responsive chord in the minds of others. The old works might have been better if they had employed the lower arts also, but it would always be better to neglect, them, than to neglect the higher mode of utterance.*

Another point necessary for the production of high art is a high motive. In this country, with the fewest possible exceptions, all works of art are produced for their simple market value in pounds, shillings, and pence. I am aware that most artists, when very young, enter on their profession with a higher aim ; but none of them are men of fortune, or even independence — few men of education — and their necessities soon teach them to adopt another god ; and in the substantial benefits of a steady income and improving position in society, they soon learn to despise and laugh at the vague yearnings of their boyish dreams. Some few escape this leaven,

* Among the strange manias to which a false system of art has led us, none is more exquisitely absurd than the attempts often now made by a set of archæological artists to imitate these ancient productions, to do this they draw as badly as they did, and colour as crudely, and, without attempting any phonetic utterance, they fancy they have imitated them ; whereas they have only thrown away those modes of expression of which they are capable, without attempting

the higher essential one, which is generally much above their intellectual capabilities. A great poet may be blind or lame, or both ; but if a fool breaks his legs or puts out his eyes, he is not a bit more a poet on that account. Our archæologists have not the courage to do that ; but they resolutely shut their eyes and tie up their legs, fancying that by that process they can see further and walk faster.

but they are far too few to leaven the mass or command the respect of those who cannot understand them ; and they can only struggle on with poverty and disappointments, till madness or the grave hides their wretchedness from themselves and from the thoughtless crowd they might have helped to higher things.

No poet, I can venture to say, from Homer down to Burns, ever produced a line worth reading while thinking how much he was to be paid for it ; nor did any painter or sculptor whose works are worth looking at. With all it was the spontaneous effusion of that poetry or power that was within them, and which must have found utterance in some shape or other. It might have been repressed, it is true, by adverse circumstances, and often is ; but no fostering or teaching could have brought it out where it did not exist, for man can always easily destroy, but only with infinite difficulty create or cultivate. Great painters and sculptors have been paid, and nobly, it is true ; but that was the result, not the cause, of their genius or eminence.

A high aim, however, will ennoble any work, and render what would otherwise be mean or ridiculous not only respectable, but, with even moderate power of expression, it may sometimes become a great and elevated production of art. But neither genius nor aim will avail any artist much if he happens to live in an age cursed with a false system of art, for, judging from the experience of the world, it is almost impossible for any man totally to emancipate himself from the feelings and prejudices of his age and country ; and when, as in modern Europe, art is retrograde, and its fundamental principle retrogressive either to Greece or Rome, or to the Middle Ages — when, in short, its highest aim is to copy as correctly as is possible, without making it an entire sham, which it too often is,—it is impossible that any great work of art can be produced. Freedom and hope are the first true principles of greatness in art, as in every thing else ; and servility, and despair of doing better than has been done before, must cramp the noblest genius and hide the highest aim. For an artist to dare to set his face against the orthodox creed of his country would require his being a hero, and the result would prove him, I fear, to be also a martyr ; and if this system cannot be exposed and exploded, there is, indeed, no hope for art in this country, and we may fold our arms and be content with the dictum that represents us as a nation of shopkeepers.

Whatever may be the causes of the degraded state of the arts in this country, it certainly is not the want of talent, either in the people gene-

rally or in the class of men who usually devote themselves to such pursuits. What we have done in civil engineering and the useful arts on the one hand, and in poetry and in general literature on the other, is sufficient to prove that both in the highest and lowest branches of art talent is available where there is a demand for it, and it cannot therefore be wanting for the intermediate arts; and when they offer the requisite rewards for its developement, men will easily be found to carry them forward. Even at present there is a mass of intellect employed, or rather misemployed, in their cultivation, quite sufficient to give them a far greater degree of perfection than they have yet reached; and were the present race of architects, for instance, only freed from the trammels of an absurd and false system, they could easily do more than our forefathers ever did: they surpass them in knowledge, in education, in refinement, and in every thing requisite for art; but they are groping about blindfold, and attempting impossibilities, of course only to fail. To me they seem like men fishing for stars whose reflexion they see in the stagnant waters of a former world: I have great confidence in the patience of fishermen; but, if I am not mistaken, they will wait long before they fill their baskets with these glittering prizes.

SECTION IV.

PROSPECTS OF ART.

It is easy, however, to say, Our arts are a disgrace to us, and to deplore our inability to do better. This has often been done before, and the facts are generally admitted to be too true, so that it is scarcely worth while repeating the arguments to prove this melancholy fact; but the more important side of the question, and the one that yet remains to be answered, is,—How are they to be improved and rescued from their present degraded state? The following work is little more than an attempt to answer this great question, and until I have gone through the whole argument it will not be easy to understand the solution I propose; but it may assist in understanding it if I shall briefly shew what appears to me the principal points towards which attention must be directed.

The first is to restore to art its progressive vitality, or, in other words, to give up all imitation of past styles, and to start at once with the determination to surpass all that has hitherto been done, and to progress towards a degree of perfection that has not hitherto been reached.

The second is to enlist a higher order of minds in their practice, or at least a higher class in society than has hitherto condescended to interfere with them.

The third is to fit them with some higher aim than merely to please the dilettante or the connoisseur; for they must teach and elevate, or themselves suffer degradation.

PROGRESS.

With regard to the first it will be easy to prove, that wherever the arts, or any of them, have been successful, it has been where a large body of the most intellectual classes have devoted themselves to their culture for a long series of years; for it is tolerably evident, that what one or two men can effect in the twenty or thirty years to which their intellectual vigour extends, must be inferior to what a thousand or ten thousand men can effect if they continue to act in concert for centuries.

That this was the case will be easily perceived by any one who will attentively study Gothic architecture, for instance, from the tenth to the

fourteenth century. He will then find a series of buildings one succeeding the other, and the last containing not only all the improvements before introduced into all the former examples, but contributing something new itself towards perfecting a style which occupied the serious attention of all the clergy, from the archbishops to the humblest parish priests, and an immense body of masons and mechanics who carried out what their superiors suggested or designed. I shall afterwards have occasion to point out how the rude and heavy Norman pier was gradually lightened and refined into the clustered shaft of the later Gothic; how the low rude waggon-vault expanded into the fairy roof of tracery, and the small timid opening in the wall, which was a window in the earlier churches, became "a transparent wall of gorgeous hues" in the best cathedrals, till at last the clumsiest temples in the world were expanded into cathedrals that would be a credit to almost any age, and are miracles of art, considering how rude the people were that erected them, and what imperfect means of construction they had at their command.

If we turn to Italy we may have the same gradual improvement in painting; and if we take a series of Crucifixions, or Spozalizio, or Madonnas with the infant Saviour—the last, perhaps, the best examples as the most numerous—and trace them from the old Greek triptiches of the ninth or tenth century, till they became thoroughly Italian and national in the hands of Giotto and Cimabue; and then continue the series to Perugino, and, lastly, observe it expanding to its highest glory in Raphael: we shall find each painter merely improving on the works of his predecessor, adopting what had been done before, and doing it again, but with such ameliorations as advancing art, and higher conceptions of its aims, enabled him to add to the general store. They never dreamt of copying another school, and there is no one instance of retrogression.

For sculpture we must turn to Greece; but there, unfortunately, our series is far from complete. But it is not difficult even there to see how the rude archaic sculptures of Selinus were gradually refined into the perfect productions of the Parthenon; and at that period not by the efforts of one man, but by a national effort in the right direction.

Either we must admit that these men were following some system that led them towards perfection, or else assume, that during the ages of Pericles and Leo X. there was a special creation of sculptors and painters; for it was not only Phidias and Raphael that illustrated these ages, but all the works of all the artists of these periods bear more or less the impress of

that perfection which is their characteristic. But, what will be even more difficult, we must admit, that between the ages of Saint Louis and our Edward the Third there was born, in every great town of western Europe, an architect capable of designing a great cathedral, and in every village one capable of building a parish church ; and that all this myriad of architects were endowed with the same modicum of genius, for all the buildings of that age, whether great or small, bear a nearly equal impress of perfection : and that this great race perished entirely in the following century, for the art of erecting such buildings was lost soon after it reached its highest point.

It was not, I need not say, the men, but the system, that made all men capable of creating these beautiful things, and might enable very commonplace men to do it again, if we chose. What that system was we know perfectly well, and follow it with persevering industry in every science and every art in which we have achieved any success.

In astronomy, a young man, for instance, first masters all that has been done up to the hour he commences his career as an astronomer. He knows more than Newton or Laplace, and must first know all that is known by all astronomers. From this highest point of knowledge he starts. If he be a man of genius, he will probably make a great stride in advance of all his predecessors or contemporaries ; if only a man of common-place talents, he still may by mere industry add something to the general stock ; and when hundreds are all working together towards one object, they must advance their science something nearer perfection.

In chemistry, geology, or any of the physical sciences, the path is the same. It is a mere matter of curiosity to know how the present degree of perfection has been reached. All past or exploded systems belong to the curiosities, not the exigencies of science. All start from the highest point that has been reached, and he must be singularly unlucky, or more singularly stupid, who cannot help the science forward at least in some small degree. The path is clear and well-defined, and though no science can ever reach perfection, all must inevitably approach towards it while they keep steadily adhering to this system.

The same is true of the useful arts : take ship-building, for instance. It is not difficult to form a series from the rude craft in which William the Conqueror invaded this country to those in which Edward the Third returned the compliment to France, or those in which Henry the Eighth sailed to the Field of Cloth of Gold, or those with which Cromwell fought

the Dutch ; and from that time every one can trace the series till it reaches the last 120-gun ship launched from our dockyards. Here we have steady progression through eight centuries, and it would be difficult to calculate how many millions of brains of all calibres, not only in every port of Europe but of America also, it has required to produce this great result. We neither know nor care who did it, more than we do know or should care who built our great cathedrals : they are the result of the same system, and not individual inventions, and can only be reproduced by causes similar to those which first created them.

In our manufacture of steam-engines, in our cotton-spinning and weaving machinery, in our agriculture, and, in short, in every thing that is creditable to us, we have followed the same path. Sometimes a Watt or an Arkwright springs up, and makes a great stride, but the thousand little men, with their thousand little suggestions, have done more towards perfecting the system than was done by these giants ; and what they did would inevitably have been done long before this by lesser men, but who were pressed towards these improvements by the system under which they were living, and which renders the efforts of the least of men, in its degree, as available towards human progress as the giant effort of the greatest genius.

Of those arts which in this country have been cultivated on the most common-sense principles, and consequently which have been most essentially progressive, there is none more remarkable than that of Civil Engineering ; and as no one has more narrowly escaped becoming a fine art, it would be difficult to get a more apt illustration of the argument, and if we take any series of engineering works, such as the Eddystone, Bell-Rock, and Skerryvore lighthouses, or any works connected with canals or railroads, or bridges, we shall easily see how progress is effected, and to what it leads. One instance, however, must here suffice, and I will take that of the London bridges as the most intelligible without diagrams. Westminster bridge was completed in the year 1749, and, both artistically and constructively, is about as bad a specimen of the art as we possess. About twenty years afterwards Mylne built that at Blackfriars, which is in every respect a most decided improvement on the other, avoiding most of its faults and adding many improvements which further experience suggested. The progress in the art was so steady, that when in the beginning of this century Waterloo bridge was designed, it was made the most perfect structure that had at that period been built, either in this or any other

country. Twenty years afterwards, however, it was surpassed by new London bridge, which was then, and is now, the most perfect existing, though were another of the same class wanted our engineers could easily build a better. And we know that this art is progressing, and must become more and more perfect, having already surpassed both the classical and mediæval styles, to which retrogression is now therefore luckily impossible. Had this not been the case, the archæologists would have raised their voice against the removal of that venerable relic of antiquity, old London bridge; and with good reason, for it was built by the same men, and in the same age, as our great cathedrals, and shewed as much constructive skill, as appropriate an application of ornament, and in every respect was as worthy of admiration as they are. But the fate of the two arts has been singularly diverse. All rejoiced in the removal of the old encumbrance, and its being replaced by a new and modern design of the nineteenth century; but if it were proposed to apply the same reasoning to Westminster Abbey, and instead of shifting and altering the internal fittings of its most inconvenient choir, the dean and chapter had determined to pull down the building, and replace it by a modern structure, all England would have risen in arms against them to prevent the sacrilege. Yet I feel convinced, had we cultivated architecture with the same earnestness and steadiness of purpose as we have done its sister art, we should have applauded these designs with regard to the abbey as sincerely as we do that of the city authorities with regard to the bridge, and parliament would have voted money, and every individual lent his aid to the good work.

If, indeed, we study the history of any one of our cathedrals, from the time of the Conquest to that of the Reformation, or during the period when art was a living, earnest utterance, we should find that it was only want of means that prevented our forefathers from pulling down and obliterating every trace of what had been done by their immediate ancestors. Wherever a building fell to decay, or a prelate lived sufficiently wealthy and public-spirited to undertake the work, naves, choirs, aisles, towers, all were swept most ruthlessly away, and replaced by the newest designs,—the latest fashions of the day. They despised the works executed a few years before their time, just as our present engineers despise the works of their fathers, because they have improved upon and advanced beyond them; they exulted in their progress and were full of hope, and the result was such success as humbles us, and makes us despair of rivalling them.

But it may be asked, How is this system to be applied to the arts of the present day? One instance will, perhaps, suffice to explain what is meant by this, as the elucidation belongs to the conclusion of this work. Supposing some church-building society were to determine to erect a modern English church, which should not be either Grecian or Gothic, or indeed any other style, but simply the best possible edifice for the performance of the Anglican-Protestant form of worship; it would be no easy matter to procure in England a design for such an edifice, but a good premium would produce several attempts. Suppose the best chosen and carried into effect. No sooner is it built than it is easy to perceive its defects; it is too high or too low, not sufficiently lighted, or there is a glare in one part and obscurity in another; it is not adapted for hearing the voice of the ministrant, or for seeing the service; the cornices are too heavy, the ornaments inappropriate, and so on. But let the society, after having carefully noted and judged of all these imperfections, employ the same architect, or another, to build a second church, in which they will be remedied as far as the case admits of, few can doubt but that the second church will be an improvement on the first: a third might remedy many defects that still could be detected in the second, but if this mode of elimination of defects were steadily pursued through a series of—say ten—successive churches, without swerving to the right or the left, but steadily striving to produce the best possible church, the tenth would certainly be a very perfect building; and if the same system were pursued for a century by a hundred architects, with the chance of one or two men of more than ordinary talents and taste arising among them, with our means of construction, and the information we may acquire from all preceding styles, I do not think it is difficult to see how we might easily do better than ever was done before; and by the time we have built the genius and experience not of one or two men, but of a hundred or a thousand, into the walls of our church, we shall have something that no one man has done or can do. This is, at all events, the identical system that was pursued in the middle ages, only on a scale I have not even ventured to suggest; it led to noble results, and with us might lead to far nobler ones.

If any man knows any other path by which mankind ever accomplished any thing great or good, I wish he would point it out. Neither my knowledge of history, nor my reason, have enabled me to detect a

trace of it any where; he would be a vainer man than I am who would in consequence suppose that such might not exist; but so far as my own experience goes, no proposition appears to me more clear.

When Bacon propounded his celebrated method of induction, he conferred the greatest benefit on science that has been conferred by any individual in modern times, and all have acknowledged that it is so; but this was only half the problem, for without this aggregation of experience progress was impossible. Induction is the static form of the problem, aggregation the dynamic: in the former we arrest the phenomenon to examine it, by the latter we heap experiment on experiment, and knowledge on knowledge, till we build up a science or an art worthy of ourselves and our civilisation. This all admit, so far as science or the useful arts are concerned; but when we turn to the fine arts, we fancy at once—so ill is their true spirit understood—that we are talking of something essentially different and distinct, requiring another process of action, and different frame of mind, instead of the one being a mere developement of the other; and that while no art is wholly and solely utilitarian, none is quite devoid of that principle: some ascend and some descend in the scale, according as use or beauty is more or less the cause of their production; but nowhere can a boundary be fixed, or the difference of process marked out, a higher or a more ignoble aim being all that is required to elevate every art into the one class or debase it into the other; but the mental process is the same, and the results are produced in the same manner.

Or, again, it may be asked, if I propose to throw over all precedent, and to abandon at once all Grecian pillars and Gothic pinnacles, and all the classical and mediæval details which now make up the stock in trade of an architect, what would I propose to substitute in their place? The answer is a simple, though scarcely a satisfactory one, as it is merely—I do not know. But if any one reflects a moment, he will see that it is impossible I or any one else could know, without, at least, the gift of prophecy; for the very essence of progress is its procession towards something we do not now see, and the essence of invention is finding out what we do not know, and what could not be before known.

The man that first rubbed amber on his sleeve, and saw it attract bits of paper, had no idea that he was handling lightning, or evoking a power that has done, or promises to perform, such wonders as this; and the man that first noticed the force with which steam issues from the mouth of a kettle, had no idea that he witnessed a power that would propel our

largest vessels, or hurry us with undreamt-of speed from one extreme of the land to the other ; nor did the ship-builders of the eleventh century dream that their rude coracles would grow into our line-of-battle ships. And even now can any ship-builder tell you what the form of a vessel will be a hundred years hence ? We know it will be so great an improvement on our present vessels that our children's children will smile with contempt on the rude clumsiness of their forefathers ; we know that steam will still work wonders we have no conception of ; and if fifty years hence one of our most perfect locomotives exist, it can only be in a museum of mechanical curiosities, to be stared and laughed at, but utterly unfit to compete with the improved forms of fifty years' progress in an honest art. And who shall say what part electricity has yet to play in the drama of anthropic invention ? We know that in these, and in all arts which are properly cultivated, progress and improvement are certain and inevitable, but we neither know nor ask where they are tending to, or what forms they are likely ultimately to assume ; and if the fine arts were in the same true path, they would be cultivated with the same certainty of success, and without people troubling themselves to try and guess beforehand, at what they can only know when it is done.

But though I do not and cannot know what form art is in future to assume if cultivated on true principles, I do know that there is only one path by which man ever did any thing that was great or good in science or in art ; and I know that if we persevere steadily in that path, new worlds of beauty will open on us hitherto unrevealed to mortal eye, and new forms crowd on us faster than we can use them. The world is wide, and nature's stores are inexhaustible ; man need not fear that he will ever be able to use them up ; they grow and multiply with the demand, and, like all nature's productions, may be increased to an unlimited extent.

As I shall have frequent opportunities of recurring to this subject in the sequel, and of proving the position both positively and negatively, I shall not say any more regarding it at present, but leave it with an assertion, which I believe the following pages will fully bear out,—That the only path by which any nation, at any age or in any country, ever accomplished any thing that was great or good either in science or in art, was by steady progressive aggregation of experience, without ever looking back or attempting to copy ; and the corollary to this,—That wherever a nation has steadily followed this path, it has succeeded in accomplishing as much as it was possible it should do in the time and with the

materials at its disposal. On the contrary, wherever any nation has attempted any other path—such as that of copying or imitation, or indeed retrocession of any sort—it has done nothing which is creditable to it, and can do nothing.

The former course enabled not only the Egyptians, and Greeks, and Gothic nations in the middle ages, to do what they did effect, but even the red savages of North America in Mexico, and the effete natives of Bengal, to create for themselves an art, original in itself, appropriate to their wants, and expressing as much beauty as their minds were capable of conceiving; their arts rose with them, culminated and sunk with them, and were always at their level. In modern Europe alone has the second path, that of retrocession, been attempted, and the consequence has been that though for the last two or three centuries we have been steadily progressing in every other respect, our arts have been stationary or retrograde; we have done nothing that is creditable, and have no hope for the future, nor can we have till we retrace our steps and get into the right direction again. Indeed so palpable and manifest does this appear to me, that I feel the principal difficulty in this argument will be to account for the manner in which any nation could have got into so wrong a path, or could hug so absurd a mania; and it would be unaccountable did we not know how all-powerful such an extended organisation as that of the English universities and the schools under their charge and influence is, and must be, for the mis-education of the upper and most influential classes of the nation. It has been so effectual, that it has not only served to extinguish almost every trace of native or progressive fine arts, and to endow us with a revival of a fossil and exotic one, totally at variance with our wants and purposes, but it has completely blinded us to what the true processes of art are, and the modes in which they should be cultivated; and till we know, at least, what the tools and processes are with which we are to work, it is indeed vain to hope that we can effect any thing worthy of us.

INTELLECT.

The second of those desiderata for the advancement of art which I have alluded to above, should, perhaps, be more correctly classified as the result of the first, for it is absurd to expect that men of intellectual power or high social position will occupy themselves seriously about such

arts as we at present possess ; while, on the contrary, were they vitally progressive, and fully up to the intellectual height of the age, they are far too attractive and ennobling not to draw to themselves the highest and the best intellects of the day.

As at present constituted they are very fit objects to employ the superfluous cash of those who have more of that commodity than they well know how to get rid of, and still fitter ones for those to earn an income by, who have no other means of supporting themselves and families.

But I should feel ashamed to ask a gentleman or man of intellect to waste his time in trying to squeeze all the exigencies of a modern dwelling into the form of a Greek temple or Gothic abbey ; or in the effort so often made to transform a beer-drinking guardsman into a Greek hero or a modern patriot, or a degraded woman of the town into a Grecian goddess or an Italian madonna. These may be amusements for those who like them, and have been very profitable to many, and may be very excellent ways of making money, but not nobler ones than spinning cotton or fattening beeves, if so much so ; and while this is what is called art, it is needless to expect that the upper classes will seriously occupy themselves about it, or consider it more than a mere amusement or a trade. And herein appears to me to be one of the principal difficulties of the question. The regeneration of art, if ever it comes, must come from the upper classes ; and they, seeing what it is, have put it aside, and learnt to despise it ; so much so that there is not one school or institution in this country where they are taught it, or could learn its principles if they wished it ever so much. And as a consequence of this, there is not that I am aware of one single individual in the upper ranks of society who really knows what art is, or is seriously anxious for its advancement. Yet one of the first things requisite is a tribunal where an artist may feel confident, not only of an impartial, but of an enlightened judgment. Hitherto, in almost every competition that has taken place for a public monument, it has, either from ignorance or unfairness on the part of the judges, degenerated into a job ; and no man of gentlemanly feelings could subject himself to the trickery and chicanery that are requisite to get a design accepted. If he did so, he would soon cease to be either a gentleman or a true artist ; and though those in the humbler walks of art can in the mass of the public secure some patrons, they must descend to their level, and flatter their feelings and prejudices to secure a verdict in their favour, and a remunerating price for their works, for it comes to that after all. Could we hope

for fair play and enlightened patronage, many would now join in the exercise of arts which it would be a delight and excitement for them to practise; and not only would they infuse a higher class of blood into the profession, but the tone and feelings of those who now follow it would be raised to an incalculable extent; and this re-acting on the upper classes, would soon shew them that art is not a bauble, but an earnest aspiration towards the divinity, which it is sinful not to cherish and degradation to be deprived of.

Had Pericles and Leo the Tenth not been as familiar with the processes and exigencies of art as any of those that surrounded them, and had the artists of their day not been gentlemen in feeling and education, and treated as such, the arts of their respective ages would never have risen to the elevation that marks them.

The fault, however, of the present age is not negation of individual talent, or any tendency to decry the necessity of its being enlisted to elevate the arts; on the contrary, we are too apt to consider them as if they were only individual utterances. We talk, for instance, of a picture as a Perugino or a Raphael, a Teniers or a Rembrandt; or a piece of sculpture as a Canova or a Thorwaldsen; and the first question we ask on seeing a building is,—Who was the architect? and we even busy ourselves by inquiring who built our mediæval cathedrals, or the temples of Egypt or Greece, as if they were individual productions. We do not know that a hundred commonplace minds can do more than it is possible for even the greatest individual intellect to attempt; and that these productions were the result of a nation's labour, and, above all, of the labour of the upper and most intellectual classes of the society that produced them; and more than this, we do not know that, had they been handed over to the contractor and the stone-mason, or to any one who looked on them as only a means of making money, they could not have been produced. It required a higher motive and aim than this, and purer and higher minds; for one of the most fundamental rules of art is, that sordid minds cannot express elevation, the impure cannot express purity, or the vulgar mind elegance; and if we want lofty, pure, and elegant art, we must go to minds where these feelings exist, or we shall get only impurity and vulgarity instead of what we seek.

Lord Brougham somewhere remarks, that it is a strange, but melancholy fact, that the three best works of three of the greatest poets of modern times—Voltaire, Burns, and Byron—should be their most impure and

licentious productions, the "Pucelle," "The Jolly Beggars," and "Don Juan." Had he looked a little below the surface, he would have known, that it was because the men were themselves impure that they could only truthfully express the impurity in which they revelled. And truth will always find an echo in every human heart, while falsehood can only please a passing fashion, but can strike no truly responsive chord; and in consequence, however wrong and despicable these effusions may be, they are yet intelligible to every mind, and awaken the sympathy of every human heart, and will continue to do so long after men have forgotten the hollow and stilted bombast of the "Henriade," or the mouthing magnificence of "Childe Harold," or the affectation of "the Corsair."

In the "Silpi Sastra" of the Hindoos it is said, "An architect should be conversant in all sciences, ever attentive to his avocation; of an unblemished character; generous, sincere, and devoid of enmity or jealousy."* A few words quaintly put together, but containing more of the true theory of architecture and the arts, than is to be found in all the works of Vitruvius put together; for all arts are the reflex of the individual or of the nation practising them, and the improvement must come from within, either by more sedulous cultivation of purity and the higher emotions, or by a more honest and straightforward mode of expression than has hitherto been adopted. And, on the other hand, we may feel perfectly certain, that all that is bad in the individual or nation will come out in their art, however much they may attempt to disguise it by foreign costumes or plumes borrowed from those who were artists not only in form but in spirit.

Were I to select among the arts of the present day the one which I conceive to be cultivated on the most commonsense principles, and which, consequently, would form the best model for the cultivation of the others, I would choose the art of Government as practised in this country. Unfortunately it is not a fine art, and consequently the analogy to many will not at first sight be apparent; and there are also class interests and motives of individual ambition which interfere sometimes with its proper course: but, on the whole, there is none in which the division of labour has been carried to so great an extent, not only in the deliberative but in the executive departments, all of which are kept perfectly distinct, and with the most marked inequality and subordination of ranks one to another, more especially in the military and naval services. And in none has progress been

* Ram Raz, "Architecture of the Hindoos," p. 14.

so steadily pursued for so long a period, always with a distinct aim, but without ever attempting to anticipate a result either by springing forward after some crude theory, or backwards to attempt to copy an extinct form. Indeed, during the last six centuries, there is scarcely a single instance of our attempting to copy either a classical model or the exploded institutions of our forefathers, but we have steadily progressed, aggregating experience on experience, suiting our institutions to our wants as they rose, trying whatever appeared to be good, rejecting whatever was bad and antiquated, and, what is almost as important as either of these, employing upon the task the upper and best-educated classes of the community, either as active law-makers and administrators, or as writers on the subject, so that at last we have raised what is, and probably will ever remain, our noblest monument.

The French, on the contrary, are rather fond of treating their laws as we do our fine arts; they employ one or more individuals to design them a constitution, generally after a classical model. On paper it looks infinitely more regular and perfect than our somewhat heterogeneous but picturesque edifice, and to a theorist has many advantages over ours. These things, however, are not done in a day, or by one or two individuals. To do any thing really great or good requires centuries of years and myriads of intellects; and though idle men of wealth may be content to live in absurd houses, or to worship in sham temples, people are in earnest about their rights and liberties, and will not consent to live under crude and ill-digested constitutions or absurd and fanciful laws.

In the middle ages our forefathers followed the identical course with regard to their fine arts which we follow with regard to our laws; they had the same honest and well-defined aim. They took the same time, used the same processes of division of labour and aggregation of experiences, and employed the same class of intellect to design, employing the mason as we do the lawyer, only to execute; and thus, in consequence, raised to themselves a monument, of a lower class perhaps, but in itself as perfect as ours. This mode we have entirely abandoned in the department of the fine arts to follow the French constitutional one; and, as might be predicated *à priori*, with similar results. Success by such means is impossible, and our systems of art are as hollow and ephemeral as the one of their constitutions. But it only requires us to shake off this absurdity, and to return to the honest and common-sense process, which no people understand better than ourselves, to restore the arts to vitality, and enable them

to resume the place they ought to occupy. At all events, by this process we are certain of being able to draw forth and accumulate and fix all the art that is in the country and nation ; and by no possibility can we ever get more, or what we have not. But I feel convinced we have as much as any people has, or ever had, and it only wants this to give it form and permanence ; and to enable it to be as great, as it would be a more pleasing monument to our fame as our much-boasted constitution.

AIM.

The last of those desiderata which I have mentioned as requisite for the renovation of art, and the last that will perhaps be necessary to mention at this stage of the work, is that of providing it with some high and well-defined aim, towards which it may strive. If we interrogate history we shall find that what elevated the sculpture of the Greeks was either the attempt to represent worthily the deities of their Pantheon, or to translate into marble their tragic or heroic myths, or to perpetuate the memory of their great men ; and, excepting the last, the motives that influenced the Italian painters in the middle ages were nearly the same, only that the saint and martyr took the place of the hero or “the doomed of fate.” None of these inspirations remain to us. It is true we still erect statues in honour of our great men ; but with us the page of history, and more especially of biography, is the real and earnest memorial of a man’s life, and the best representation of his virtues and actions. As an illustration of this, it is true that the portrait or statue are valuable as representations of the individual living man, but only in so far as they are correct representations of his bodily form or intellectual bearing ; if they attempt any thing beyond this they are worse than useless ; but even when they succeed, the printed page surpasses, not only in distinctness but in durability, all the statues that ever were carved in marble or cast in bronze ten times over ; and it never can, I fear, become the earnest utterance it was with the Greeks. Nor will our theology admit of the other two modes of inspiration ; our notions of the Divinity are far too pure and too elevated to admit of our ever seriously attempting to represent God or the heavenly host either in stone or with colours on a piece of canvass. Nor can we again sink so low as to believe either in the myths of the Greeks, or the more absurd fables and myths of the middle ages, so as ever to attempt to reproduce them as

serious things that could or should be earnestly or reverently handled, or which could consequently elevate either our art or ourselves to a higher grade than we now occupy.

So far, therefore, as sculpture and painting are concerned, it is not at first sight apparent where the aim is to be found towards which they should strive. This, however, is not the case with the Technic Fine Arts. Their mode of cultivation is easily understood, and the elegance and beauty of form and colour combined with fitness and mechanical perfection are motives all can appreciate, and which are only partially obscured by occasional affectation of copying. Nor is there any real difficulty with regard to architecture. We are now erecting in almost every city in the land, and in every corner of the country, public buildings or mansions of far higher pretensions as to dimensions, and far more ambitious in ornament, than any work of the Greeks, or that were attempted on one design in the middle ages. We cannot now do without large buildings, and we are so far advanced that we will not do without ornamental ones. So far, therefore, the elements of architectural excellence are in our hands, and it only remains for us to choose whether we will, under the guidance of common-sense for the disposition, and of discriminating taste for the decoration, produce buildings which may easily be made to surpass those of the Greeks or mediæval architects, and may clothe the land with beauty; or whether we will go on erecting edifices which are merely monuments of our servility and ignorance, till we have filled the land with dried specimens of past civilisations, as if only to tell posterity that we had no art of our own, and dared not think for ourselves. In these arts our path is clear and open to us; and at the other extreme of the scale there does not appear to be much difficulty regarding the motive or purpose of the higher branches of the Verbal Phonetic Arts. They are not, perhaps, cultivated as they should or might be; but this is not because their aims are misunderstood, or that we do not know towards what they should strive; but more, I take it, from their isolation at the upper end of the scale. Our other arts do not want them, nor do they require the lower arts; they are like a roof without walls to rest on, or an interior to cover; and whatever their own intrinsic beauty or merit may be, they do not fulfil their mission, or fit into the general scheme of our intellectual exigencies. It is true, literature was long held, like our other arts, in the classical bondage; but it has now freed or is freeing itself from this, and its path is or soon must be onward and progressive.

If, therefore, we see our way at all clearly as to the motives or aims of the highest and lowest classes, are we to despair with regard to the intermediate ones? It is true we can no longer bring down the Deity to our level and represent God by the same means and with the same materials which we employ to represent an alderman or a dowager duchess. We can no longer luxuriate in Grecian fables or mediæval superstitions. We cannot even condescend to look on sensual beauty as an aim and end of art, as the Greeks did, though it is essential for our purposes as a vehicle to express a higher class of art. But do not these very facts themselves announce a higher aim and higher aspirations? If we may not degrade the Deity to the level of humanity, we may strive to raise man towards the Divinity; and here, at least, is "ample space and verge enough" for far better things than ever the Greeks attempted or dreamed of. No human artist, since the world began, ever represented, or sought to represent, any thing but human loves or hates, or hopes or fears,—man's feelings and his aspirations are all he ever could or tried to give utterance to; and whether we express them as the Greeks attempted to do by bringing down the Deity to clothe him with human attributes; or whether we take the opposite course of elevating man towards God by investing him with all that is noblest and best; the aim and aspiration are the same; and the one that is open to us is by far the noblest and the easiest mode of expressing them.

The superior purity of our notions of the Divinity, and the extent and solidity of our phonetic knowledge, are certainly high motives of inspiration which the Greeks knew nothing of; but, in addition to these, I do not know of one single one among the lower emotions and feelings which we do not possess to an equal extent with them, and might not use as effectively if we chose. We certainly love and hate, or hope and fear, as intensely as they did. We aspire after good, and dread degradation, as much as any people of the earth. We bear ills with the same fortitude, and follow fortune with at least as much daring. Our standard of morality is far higher than theirs, and our religion nobler and purer; and if these are not materials for a higher class of art, I do not know what are, or where to look.

Even were there no other cause, the position of women in modern society ought alone to be sufficient to elevate our arts above those of antiquity. With us she is no longer a slave, or merely looked on as ministering to sensual gratification, but in every respect as man's equal;

the sharer and sustainer of his joys or sorrows, the soother of his troubles and the sweetener of his enjoyments, her position has done more to civilise and impart elegance to the tone of modern society, and to elevate the domestic virtues in the scale of human aspirations, than can well be conceived by those who have not seen with their own eyes, or troubled themselves to realise a state of society where their influence is not so felt. Indeed, the mission of the arts seems, like that of woman, not to do the hard work or deep thinking of the world, but to harmonise our bodily and intellectual labours into a whole of beauty, and to convert what would be hard, rough toil into a source of intellectual pleasure and gratification; and in so doing to humanise and civilise mankind. It is this position of woman in modern society that is the sole business and only inspiration of our novels, which are one of the most extensive and popular branches of our literature; these and fifty other things as worthy and as lofty, our artists throw away, to try and reproduce Venuses and Apollos, or madonnas, or saints and saintesses, or any exploded or fossil art; and they tell us that there is no inspiration in modern times, because men and women will not dispense with dress to suit the exigencies of their sensual arts, and we cannot feel any burning enthusiasm in seeing a well-chiselled representation of a knee, or a well-painted hand or bit of satin. If I knew of one single source of pure or high inspiration that existed in any other age which does not exist now, I would point it out, but I do not; on the contrary, I can point to many as existing now which former ages had no suspicion of, and it is painful to see them cast aside unused for the noble purposes they are so well fitted to promote, and their place supplied by mockeries and absurdities which degrade the name of art, and lead men to believe that it is only a hollow bauble, or a pander to our lower sensual propensities.

Of all the artists we know of, there is none Englishmen so much admire, or are so proud of, as Shakspeare. All admit that his works are full of passages of the greatest beauty, and often of the highest sublimity; yet if ever man confined himself entirely to the human heart, and such inspirations as were around him in the hearts and feelings of those by whom he was surrounded, it was Shakspeare; and if he did wander to classic models or exotic affectations, it was to fail as others have done. Had he lived now—if he could have escaped the curse of imitation—his views would have been enlarged, his feelings purified, and

all the sources of his inspiration doubled. And these are around us, at every one's command—there is no artist that may not avail himself of them, and rise, at least, to his level; when he has reached that he may turn and ask for higher; but till an artist has risen above the level reached by Shakspeare, do not let him say there are no inspirations in modern times. Our forms are different, it is true, from those of the Greeks, but the form of art is of the very least possible consequence; mind is every thing: and when poetry exists in the mind of an artist, there is little fear that if he tries honestly he will find means to express it, provided he thinks only of how he can express himself most easily and clearly. If the poetry is not in him, he may study all the arts of all the nations of the world, but he will produce nothing but a mockery and a sham; nor could he have done otherwise had he belonged to any other nation, or been born in any other age, from the beginning of the world to the present day. Art must come from the heart, and can only come thence; and nothing but folly or vice and corruption can prevent the heart of man being as full of sweet and noble aspirations now as at any other age: I believe none ever afforded such opportunities as this.

But besides these and many other general motives I need not here enumerate, it would be easy, if it were worth while, to point out particular ones which have elevated art in other ages, and might, consequently, do so in this. We have churches to build in every city in the land, on which the architect, sculptor, or painter, might lavish all the treasures of his art, without making them either worthy of their object or of ourselves. We have palaces and mansions to erect, requiring far more ingenuity and complexity of art, and at the same time more elegance, than ever were demanded by the dwellers in such abodes in any age; and we have public buildings and public works on a scale hitherto unheard of. We have noble deeds to commemorate, a noble literature to illustrate, and the elements of infinite poetry around us, which no art or time can exhaust. We have patriotism that would willingly see us elevated in the scale of nations by excellence in the nobler arts as well as in those of war, or their utilitarian compeers, in which alone we have hitherto been able to compete with the rest of the world. But a higher motive than even patriotism exists in the desire to elevate man generally in the scale of intellectual beings, and furnish him with higher aims, which is felt by all the better intellects of the times. Everywhere there appears a craving

after something better than we have got, but generally ill-defined or wrongly directed; and all, I believe, would rejoice could art regain its true position, and be employed to win man to virtue and goodness, and to civilise and elevate him, which is the true object of all the arts, but more especially of the highest.

If men were only once thoroughly convinced of the direction in which the true future of the arts lay, the victory would already be more than half gained. At all events, I feel sure they could not advance many steps in the right path without our becoming immediately aware how utterly unworthy of the nineteenth century were the arts both of the Greeks and those of the middle ages; and once convinced how contemptible they were, the artists could not help feeling the degradation inherent on their present servility of copying. Emancipated from this thralldom, I have little fear of the arts attracting a higher class of intellect than has hitherto been applied to their cultivation; and these two requisites obtained, I do not fear in the least the discovery of the third. Earnest search after the beautiful by men of a high class of intellect could not long exist without the discovery being made of the direction in which it is to be sought after, and where it certainly will be found by those that seek it in sincerity and truth; but it certainly will not be where it has been found and worked before, but in some new and loftier sphere, where the virgin ore is still concealed in its original matrix.

However tempting it might be to pursue this subject further, I shall, for the present, conclude this part of my subject; not that I have nearly exhausted it, but because it is easier for me to prove, and the reader to understand, the subject, when illustrated by narrative, or reference to special examples, which is the object of the rest of the work. What I have hitherto advanced must to many appear only vague assertions, or unproved hypotheses, nor is it intended that it should be otherwise; what is here written as a prologue should, in fact, be the epilogue, and as far as the author is concerned is so. All that has been attempted in the preceding pages is a sketch of the general map of the world of human knowledge, sufficiently detailed to illustrate the position of that particular province with which I am more especially occupied; and though I have traced its outlines, and marked some of its features, it is only that it

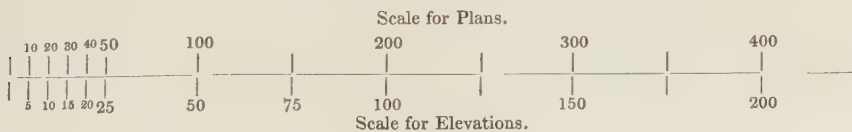
might not be a blank when the rest is more carefully filled in. The proof of what I have here advanced remains for the sequel, and I ask no one to believe my assertions till the whole argument is before him. If I fail then in proving what I have asserted, I have failed indeed ; but I trust to being able not only to substantiate all that is here advanced, but a great deal more as collateral proof, and to add many proofs and illustrations that I have not hitherto been able even to glance at.

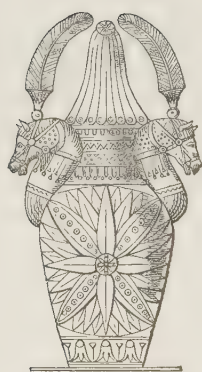
HISTORY
OF
ARCHITECTURE AND THE ARTS.

NOTE.

WHEN this work was first designed it was the author's intention to have added to it, or incorporated into it, a parallel of all the principal buildings of the world, drawn to the same scale, so as to present their technic and other artistic merits at a glance without the trouble of reducing them by study, which must be done when the scales are different, and the reader requires to familiarise himself with the scale of each before he can come to a correct judgment as to the merits, or the various kinds of merits, for which a building may be remarkable. After, however, the materials were collected, it was found to be too expensive and too onerous an undertaking for the unassisted means at his disposal. But that the advantage of such a mode of presenting buildings might not be entirely lost, wherever it was practicable the plans of all the buildings given in this work are drawn to a scale of 100 feet to an inch, and all sections and elevations to double that size, or 50 feet to an inch, except in one or two instances, such as the Mammeisi at Elephantine, and the small temples at Rhamnus, which were so small that their features were not distinguishable on so minute a scale, and in the illustration of the Great Pyramid at Saccara, of the Tomb of Porsenna, and the Basilica of Trajan, the plans are all to the usual scale, but the elevations, being either restorations or diagrams, are drawn to the same scale as the plans: except in these instances however, every illustration that is not a perspective view or a mere diagram is drawn to the above-mentioned scales. When this, for any reason, is not the case, a scale has been attached, and it is mentioned in the text.

The idea of such a parallel is borrowed from that of Durand, published in Paris in the first year of this century (an ix. de la République), and which is one of the most useful, indeed almost the only, book of its class. The immense strides, however, that have been made during the last half century, not only in our knowledge of buildings, but in the true principles of architectural criticism, make it now useless for any practical purpose; and it is much to be desired that it should be superseded by a better and more perfect work of the same kind. The scale I have adopted is somewhat larger than his, being in the ratio of 100 to 82·5, or 17·5 per cent, and for such a work appears to me about the most convenient for the English reader that could be adopted. For with it any one with an English scale of any sort, or a foot-rule, can at once apply it to the engravings, without reference to any thing engraved on the plate, it being merely this,—





Egyptian Vase.

HISTORY OF ARCHITECTURE, ETC.

PART I.

CHAPTER I.

EGYPT.

SECTION I.—INTRODUCTORY.

IN the preceding pages I have attempted to state the problem of the theory of art in its statical form without reference to time. The remainder of the work is devoted to the dynamical part of the question, or art considered with reference to its history. The former occupies the same position in a complete statement of the question that the Universal Sciences occupy in the general classification of human knowledge; what is there stated refers, or should refer, only to general laws, applicable to all instances, in all times, and without ever referring to particulars. The second branch, like Physics, is concerned only with the description of particular examples, and can refer only to them: the former, it is true, grows out of the latter, and if perfect would, in a certain degree, supplant it; but both are indispensably necessary, not only to a correct understanding of the sciences of nature, but also to the elaboration of a true theory of art, or, indeed, to a correct statement of any problem of physical or anthropological science; and one great advantage of the classification I have adopted is its applicability, not only to the general scheme of all human knowledge, but to each individual science, and to each branch of those sciences, where it is attempted to elaborate them separately.

As the history of architecture has been hitherto written, it has been

little more than a technical description of buildings chronologically arranged, without much attempt to elaborate from such a classification any general theory of art, though the want of that has been felt, and would before now have been attempted, had the histories been sufficiently complete, or had men been able to emancipate themselves from the influence of the modern school, and learned to look at art not as a thing merely to be copied, but to be studied with reference to future creation of new styles and higher classes of beauty ; indeed, unless a man can forget—or at least obliterate from his mind—all that has been done in art in Europe, from the time of the Reformation in the sixteenth century to the present hour, it will be in vain for him to attempt either to understand ancient art in itself, or to apply its lessons to any useful purpose so far as the present is concerned. It is almost impossible to repeat too often, or to insist too strongly, on the necessity of this distinction for a right understanding of the subject ; for the want of it is what has rendered the study hitherto so unproductive of beneficial results, either for the elaboration of history or of art. The foundation of all true knowledge on this subject rests on the fact that, anterior to the sixteenth century, architecture and all the arts were cultivated with only one motive and for only one purpose, that of producing the best possible building or work of art with the best possible materials at the command of the artists, and without ever looking back on preceding works, except to learn how to avoid their defects and surpass their beauties—in short, an earnest progressive struggle towards perfection. Since that time the rule has been to produce the best possible imitation of some preceding style in building, without reference to the purpose for which the model was erected, or the climate or customs that gave rise to its peculiarities. “*Nemo repente fit turpissimus*”—nor did any style become thoroughly debased at once. The architects of the Renaissance only copied Roman details, and that with a strong Gothic feeling, and encrusted with them their edifices of Gothic forms. Soon, however, these classical details assumed an importance which hid or masked the reality, and by degrees have become of paramount importance ; so that our buildings and statues really affect to be reproductions of Greek or Roman, and latterly of Gothic, art.

From the former system it results that all the productions of more ancient schools are specimens of true anthropic art, and that we can speak of them with the same certainty and the same pleasure that we would of any natural production ; and whenever we can trace the plan of an

edifice, or find a few *dissecta membra* of its details or ornaments, we can at once reason on and form them with the same certainty with which the comparative anatomist, from a few vertebræ, or bones, or teeth, of some extinct animal, can restore the whole form, tell us of the habits of an animal no human eye ever rested upon, and to what families it was allied, and what its rank in the scale of creation. With the same facility with which a fossil impress or a bone does this for the geologist, does any true style of art enable the archæologist to tell from a few fragments in what century the building to which it belonged was erected; whether by the Egyptians, the Greeks, or the Gothic nations; who the people were that erected it, whence they came, and what their affinities were with other nations; and even what influence the preceding or contemporary people had on them or their civilisation. Language has afforded hitherto the principal means by which these great problems have been attempted to be solved, but I am convinced that art affords surer and better means, and far more copious materials, than that can do; and when the subject is properly understood, it will be the one principally appealed to, for there is more true history built into the walls of the temples of Egypt or Greece, or our Gothic cathedrals, than exists in all the chronicles that ever were written; and these are unaltered contemporary records, easily read, and easily translated into the universal language of mankind. If they do not, at least, rival the written book in fulness and complexity of detail, they certainly surpass it in vividness of portraiture, both of manners and emotions, but also in authenticity: the one was often written by foreigners, or those who understood but little of what they were writing about, and may have themselves falsified what they knew, or their narratives may have become corrupted since. The buildings and works of art of a people are produced by themselves to tell their own tale, and neither are nor can be falsified by time or the errors of copyists; but stand as left by those that made them, with the undying impress of their aspirations or their shortcomings, stamped by themselves in characters of adamant. We may not even now be aware of their importance in this light, because our system differs so totally from theirs, and few can get so thoroughly out of the prejudices of the present age as to be able to look with different eyes on the past. If, for instance, a philosophical historian were to go into one of our modern towns and attempt to apply the same rules of art to them, he would in one corner find an edifice that would convince him of our direct and unadulterated descent from the Greeks; a little further on, he would

find that at least a large class exhibited as pure a descent from ancient Rome ; a little further on, he would find a large building in course of construction that shewed no trace of these races or styles, but proved us to be true Britons, only that we had remained perfectly stationary since the fourteenth century ; and this again would be corrected by finding that, according to another building, we had not progressed since the twelfth century ; in another street he would discover that we were Egyptians, Chinese, Turks, or Heaven knows what. No rule of true art will apply to ours. Yet there is history built into the walls of our edifices, as well as into those of antiquity, but it is the history of a nation that neglected all the true forms of the beautiful, and were earnest only in the pursuit of the most literal utilitarian utterances, and who were in consequence content to imitate, like monkeys, without understanding what they were doing, or why they did it, what men, using their intellect as such, had elaborated with half our means out of the rudest materials.

If, however, we want one set of rules to enable us to judge of modern art, and another to guide us in speaking of preceding styles, we seem almost to want a third to enable us to form any correct judgment regarding the Egyptians or their arts, so singular in their duration and so solitary in their forms do they appear ; and, indeed, there is only one country with which they can be compared in any way,—that is China ; which plays a part in the modern world so similar to that enacted by Egypt in the old, that I at least never can think of the one without reverting to the other ; and never attempt to explain an Egyptian phenomenon by any analogy except that derived from the furthest East. In both countries there is the same singular segregation from the rest of the world, the same indigenous civilisation, and the same long persistence in their own habits and customs, and in their own strange, quaint, but cumbrous way of expressing them : for what the hieroglyphics were to Egypt, their alphabet is to the Chinese,—a land-mark between them and the rest of the world, and a wall that circumscribes and confines, though perhaps it may seem to defend, them.

They reached pretty nearly the same grade of intellectual and political developement ; and though their arts differ most widely both in form and aim, there is about the same degree of practical dexterity with the same amount of mental power displayed in both. The Egyptians, however, in their great days were mighty conquerors, and aimed at eternity of fame and power ; and their works were those of giants. The Chinese are a con-

quered people : peaceful in their habits, nearly equal in rank, and modest in their aspirations ; and they have sought to develope only the lower classes of the technic arts, while the Egyptians aimed at the highest ; and though incapable of pure phonetic arts, and not even appreciating the value of æsthetic beauty, they carried technic excellence to a higher pitch than any nation in the world, and sought by their hieroglyphic mode of writing to impress a phonetic mode of expression on their technic aspirations. Hence it must be confessed a wide, very wide, difference between the utterance of the two people ; but the similarities are still more striking, and certainly more so between these two nations, than between these and any other people on the globe with whom either can be compared.

The first great peculiarity of the Egyptian civilisation is its unexampled duration. Not only are they the earliest people who have left us any remnants of their existence, but they continued to practise their own arts in their own way for a period of not less than four thousand years ; almost uninfluenced by the rise and fall of surrounding nations, and as unchanged by time as the monuments that now attest the fact. So singular and so important does this fact appear, that it has cost me many a long day of constantly-recurring research before I could satisfy myself of its correctness. I have no doubt now regarding it, and as I believe no one can pretend to understand Egypt till he has satisfied himself on this head, I have put together in an appendix* the principal reasons which have induced me to come to this conclusion. It would require a heavier volume than this is to state them all ; but much of the work has been done by the Champolions, Rosellinis, and, last and best, by Bunsen. And I have sought more to state in what I differ from these authorities, and why I do so, than to attempt a chronology of my own. If I am correct, it is a complement to their works, not any thing that can be substituted for them. Those who wish really to understand the subject will study it, or some other works, with the care and thought it requires ; those who wish only to obtain a general idea of the matter, will perhaps rest content with the annexed table of the dynasties, which is a *résumé* of the conclusions arrived at from the reasonings contained in the Appendix.

* Appendix A.

EGYPTIAN DYNASTIES.

			Duration of Dynasty.		Reigned over Upper Egypt.	Reigned over Lower Egypt.	Reign commenced.	
							B.C.	D.E.
1st dynasty...	Thinite	252	...	252	...	252	3906	6094
2d " ...	Ditto	302	...	302	...	20		
3d " ...	Memphite ...	214	...		...	214		
4th " ...	Ditto	284	...	284	...	284		
5th " ...	Elephantine .	248	...	248				
6th " ...	Memphite ...	203	...	203	...	203		
7th " ...	Ditto	70 days						
8th " ...	Ditto	146	...		...	146		
9th " ...	Heracleapolite	100	...		...	100		
10th " ...	Ditto	185	...		...	185		
11th " ...	Theban	43	...	43				
12th " ...	Ditto	246	...	246	...	160		
					1578	1564		
Shepherd invasion							2340	7658
13th " ...	Diospolite ..	453, descendants of the Thebans.						
14th " ...	Xoite	484, ditto of Memphites.						
15th " ...	Shepherds ..	284						
16th " ...	Hellenes	518, a race of Shepherds.						
17th " ...	Shepherds ..	151—15 and 17, two races of ditto.						
Contemporary dynasties reigning 511 years.								
18th " ...	Thebans	393 over all Egypt.					1829	8171
19th " ...	Ditto	194 ditto.					1436	8564
Exode							1312	
20th " ...	Ditto	135.....					1242	8758
21st " ...	Tanite	130.....					1107	8893
22d " ...	Bubastite	120.....					977	9023
Temple of Jerusalem destroyed							972	
23d " ...	Tanite	89.....					857	9143
24th " ...	Saïte	44.....					768	9232
25th " ...	Ethiopian	44.....					724	9276
26th " ...	Saïte	155.....					680	9320
Persian invasion							525	
27th " ...	Persian	124.....					525	9475
28th " ...	Saïte	6.....					401	9599
29th " ...	Mendisian ...	20.....					395	9605
30th " ...	Sebennyte ...	24.....					375	9620
31st " ...	Persian	19.....					351	9649
Alexander the Great							332	9668*

* In the above table I have inserted a column for an æra commencing 10,000 years before Christ, which I have called the Decimal Æra, and which I have always found most convenient in chronological inquiries anterior to the Christian Æra. Its use appears to me so obvious and so simple, that I cannot help believing it must have been suggested before, though it has escaped me in my readings.

All are aware of the great inconvenience

of counting backwards and forwards from an intermediate period like our æra; to avoid which the old chronologers started from the creation of the world; as that, however, was a hypothetical and much-disputed date, the Julian period and many other expedients have been suggested, but all practically so inconvenient as to lead to their abandonment. The one here proposed starts from a period 10,000 years before Christ, which is remote enough for the wildest tradition,

The following summary of the principal facts contained in the above table may, perhaps, be useful as a *memoria technica*, serving to fix the principal epochs in the memory, and also enabling us to distinguish those most important for the history of art and the periods that divided them.

If we divide the 3555 years which Manetho assigns to the twenty dynasties who governed Egypt, from Menes, the first mortal king (B.C. 3906), till the time of Alexander the Great, into seven periods of about 500 years each, three of these periods (1564 years) will comprehend the whole of the old kingdom; three others (1480 years), the period from the expulsion of the Shepherds to the destruction of the last king of the last dynasty by Ochus (B.C. 350); the remaining period of 511 years is occupied by the domination of the hated Hyksos, and intervenes between the two. These may be further subdivided into the first 500 years, when kings reigned who have left no monuments, or at least few, and hitherto not well-authenticated ones; the next is that of the great pyramid builders; the last is occupied by *Rois fainéans* till the twelfth dynasty arose, of a new and more vigorous race, who extended their conquests into Central Asia, only, however, to invite back the greatest disaster Egypt ever experienced, in its conquest by the Shepherds. She arose, however, invigorated and refreshed after their expulsion, and the next 500 (518) years that elapsed between that event and the Exode is by far the most brilliant and interesting period in her annals, and the one which gives her that strange pre-eminence she claims among the nations of antiquity. To this succeeded a thousand years of decay, and of Ethiopian or Persian domination, till she had sunk utterly prostrate and hopeless in herself; but from this she was temporarily raised, under the influence of a more enlightened and vigorous race of Greek and Roman rulers, who, for the eighth period of 500 years, restored at least an outward semblance of that prosperity and of those arts which under her native Pharaohs interest us so deeply.

During this long period the same art reappeared at three different epochs at least. I have seen a necklace bearing the signet of Menes,

and involves no theory whatever. The year one of Christ, according to it, should be written 10,001; A.D. 1000 as 11,000, the present year as 11,848, and so on adding one stroke before, which reduces all years subse-

quent to our æra to years after the decimal æra; and we can thus count steadily forward from the earliest to the latest date, without involving any theory and without any chance of confusion or misunderstanding whatever.

which I do not doubt was fabricated under the reign of that monarch.* But, if this is doubted, there are at least the Pyramids, and the number of contemporary monuments, with pictures and hieroglyphics which surround them ; after a lapse of 1500 years there are the great Theban monuments of the eighteenth dynasty, and again after fifteen more centuries those erected under the Ptolemies and the Cæsars ; and so similar are the arts at these three periods that it requires no small knowledge of the subject to say which is the most perfect or the most ancient. Knowing, as we now do, the age of each, this assertion appears hazardous, and we may feel inclined to ask how any one could make the mistake ; but the French *savans* under Napoleon—and they were no common men, no mean judges of art—reversed the series, and placed the Greek and Roman temples of Dendera and Edfou at the beginning, as the oldest in Egypt ; and though I cannot perceive that they formed any distinct opinion regarding the Pyramids, they seem inclined, with Herodotus and the Greeks, to place them after the age of Sesostris and the kings of the eighteenth dynasty.

Be this as it may, when we compare this strange persistence through thousands of years with the comparatively ephemeral civilisations that have sprung up and disappeared since these days, we cannot but feel that we are in the presence of men differently organised, or actuated by different motives from those which guide us ; and that we must try to divest ourselves of our usual modes of thinking and judging, before we can come to any just conclusion regarding them.

Another peculiarity, scarce less remarkable than its duration, is the exclusiveness of the Egyptian civilisation ; for, so far at least as we can trace, they seem to have borrowed nothing from surrounding nations, and also to have been entirely devoid of that spirit of propagandism which forms so distinguishing a feature of all the Indo-Germanic, and indeed of most modern races. We neither know whence they came nor whither they went, for the modern Arabic Fellahs of the banks of the Nile can scarcely be called their descendants, and their Coptic brethren are too few and insignificant to be called even a remnant of so great a people. Nor do I think their relationship to any other race has hitherto been satisfactorily made out ; generally they are supposed to be allied to the Semitic races, but the difference between them and the monothcistic and

* In the possession of Dr. Abbott at | his continuation of Champollion's great
Cairo, and published by M. Prisse in | work.

alphabetic inhabitants of Syria and Arabia, who commonly are understood as the typical representatives of that class, is far too distinct and strongly marked to be admitted without more proof than has hitherto been adduced. If there is an affinity, it must be an antediluvian one, before either race appears on the page of history; or, at all events, it is a relationship between these races and the older pyramid-building Memphite kings,* of whom and of whose religion we know so little, and not with the great Theban dynasties, whose exploits and works form nine-tenths of what is considered Egyptian.

On the other hand, their religion and form of art have more that is Indo-Germanic in them than Semitic, and there is much more of both to be found in Greece than in Syria: but even then the analogies are remote; and throughout the whole there is a third element, so peculiarly Egyptian, and so completely over-riding the other two, that, though it may be interesting as far as the former are concerned to trace what they got out of Egypt, that country may, nevertheless, be looked on as a distinct and separate individual whole, without an affinity or relationship of any sort; and till, at least, we can find some earlier civilisation that could have influenced their descent, or even some contemporary one that did or could have had some influence on their arts or civilisation, we must, I fear, be content to look on both these, as well as their race, as of purely African origin,—the only ones that ever reached any high degree of cultivation, and reaching it by means totally different from those that any Asiatic (except, perhaps, the Chinese) or European nation ever employed or could employ for the same purposes; and during their whole career they steadily pursued their own straight but narrow course, like their own mysterious Nile, which within their boundaries neither receives a tributary nor mingles with the other waters of the earth, rarely even with those of heaven, but pursues its own solitary way, and performs its appointed task differently from any other river of our globe.

We know that for 500 years they were subject to a foreign—probably a Scythian—race, yet these passed away and left no impress on the banks of the Nile; and but for the mention of them in the page of Manetho, we should not now be able to detect the fact, so completely has the singular nationality of the Egyptians obliterated all trace of their dominion; and, what is even more strange, we know from the monuments that Egypt

* Were the pyramid-builders polytheistic?

conquered and held all Western Asia for nearly a similar period of five centuries, yet we can scarcely trace their influence on the habits or civilisation of the people of Mesopotamia, or to the westward of them ; nor do they seem even to have cared to adorn their conquered provinces with any of the monuments of their greatness with which they so profusely filled their own native valley.

The Greeks, it is true, borrowed largely from them—perhaps I should say stole, for the Egyptians cared not even to lend—and half their civilisation came from the banks of the Nile, but apparently not so much from any direct influence its inhabitants exercised for this purpose, as from accidental proximity, and the influence a highly-cultivated people must have on an active and inquiring but semi-barbarous race ; coupled, perhaps, with some mysterious affinity of race, important so far as the latter people were concerned, but utterly neglected or disavowed by the Egyptians, and consequently without importance in speaking of them, however essential it may be in trying to understand what the Greeks did. In themselves they seem to have sprung from the slime of their own river, and to have sunk into it again ; but while they lived upon it they cultivated themselves only for themselves and their own glory, totally unheeding either the love or respect of the half-barbarous nations by whom they were in the day of their glory surrounded, and believing themselves not only to be the most perfect people on earth, but also that their science and their art were absolutely perfect in themselves. They cared not for the rest of the world, except in as far as it contributed to their own selfish glorification, nor did they think it possible to improve what, in their conceit, they considered perfect, and they were therefore content to remain a solitary and a stationary race. All their arts bear the impress of this Semitic peculiarity ; while we are aiming at universal brotherhood, and progress to something better, and consequently our arts are not their arts, nor our feelings theirs, and those who would judge the one by the other will scarcely comprehend the one, nor derive from the study much instruction towards improving the other.

There is a third peculiarity in Egypt more important to her arts, though not to her history, than the two I have just mentioned, and it is the fact of her having only one form of permanent phonetic utterance. We are so accustomed to an alphabetic mode, separate from, and almost in opposition to, the imitative or pictorial mode of expression, that we can only with great difficulty realise the position of a people who possessed

only the latter as the Egyptians did, and who in consequence could scarcely possess a national literature ; nor could they cultivate the higher modes of phonetic art, such as epic poetry or the drama, but they were confined either to the technic and æsthetic arts, or the more circumscribed form of the phonetic ones, to express what they wanted to utter, either for influencing their contemporaries or with the desire of conveying it to posterity.

One, however, of the most instructive lessons we learn from the study of Egyptian antiquity, is to observe the ingenuity with which they mixed together the arts of architecture, sculpture, and painting, so as really to make them one art, quite indivisible, according to their mode of practising them ; and to make this compound at once express their whole history and literature as far as the three could do, and that with a distinctness which is startling, and after a lapse of 3000 years, repeats more clearly the feelings and the motives of those who executed the works than almost any written book could do, and which to the eye of one familiar with its forms resuscitates the whole empire of the Pharaohs with its singular and enduring civilisation more clearly than any book could do : for though words may convey to our minds images of familiar things, they could scarcely represent to us any thing so exceptional as Egypt was in those days.

There is, besides, to us a charm in a new form of art, and a hope implied, inasmuch as if we can convince ourselves that there are two or three distinct forms of art, there may, at least, be as many more, and we may find one of the yet undiscovered ones—but of this hereafter. In the meantime we must try and picture to ourselves this strange art of the Egyptians—strange in its durability, its solitariness, and its mode of expression ; and, perhaps, as much so from the distinctly African fetichism of its mythology, and the material immortality it aimed at, and the thousand and one peculiarities that arose from its position, in a valley differing from all other valleys, and on a continent in which they alone of all its races reached any degree of civilisation.

SECTION II.

NOTWITHSTANDING this singular uniformity of style, and persistence in one form of decoration, which is so singularly characteristic of Egyptian art, there are three or four great divisions into which the monuments of that country may be classed with sufficient distinctness to enable us to recognise easily the boundaries of the groups, when once they are pointed out.

The first is that of the Pyramids: all of which, with the exception, perhaps, of the great one at Saccara, belong to the period anterior to the Shepherd invasion,* and all of them to Lower Egypt, and the neighbourhood of Memphis, and the left bank of the Nile, and there is nothing of this age in Upper Egypt that deserves the name of a monument. During this period we find neither temples nor palaces—nothing, indeed, but pyramids and rock-cut tombs, unless it is thought worth while to except something like houses in the neighbourhood of the Pyramids, and some steles and inscriptions in various parts.

The second group comprehends the monuments of the great eighteenth, and of the dynasties immediately preceding and following them. In this age there are no pyramids, but palaces and temples are pre-eminent. The rock-cut tomb takes a new and far more important form; and colossal statues and obelisks are new forms, and assume an importance hitherto unknown. The principal locality of these monuments is Thebes, but they also enriched Lower Egypt and the Delta with numberless edifices long since perished.

The third division belongs to the same age and the same Pharaohs as the last, but its locale is Nubia, and it possesses this most singular characteristic, that while in the neighbourhood of every great city of Egypt the rocks are honeycombed with tombs, with the most insignificant exceptions possible, Egypt does not possess a single rock-cut temple. Nubia, on the other hand, has no tombs: but the builders of

* Bunsen's "Egyptens Stelle," vol. ii. p. 346 *et seq.*

the palaces of Thebes in that country almost invariably excavated the temples out of the living rock. In consequence, almost all the religious edifices of that country are either wholly cut out of the rock, or their sanctuaries are so, and structural porches and courts were subsequently added to them.

The fourth class comprehends all the monuments of the Greeks and Romans; with scarcely a single exception they are temples, properly so called, differing in many respects from all preceding ones, and as uniform and like one another in plan and design as the Doric temples of the Greeks. In this age we have neither palaces nor pyramids, nor even tombs of any importance, nor obelisks, nor colossi,—no lay monuments, in short, or any thing dedicated to Egypt's glory; and nothing that did not subserve to the aggrandisement of a priesthood that fattened on the debasement of a people it had enslaved.

The history and boundaries of the last are perfectly understood, and need not, therefore, be entered on more particularly here; but the three former, though perfectly distinct as types, are so mixed together in practice, and overlap one another at so many points, that it is difficult to circumscribe them exactly. I have no doubt, however, but that they do point out the existence of three distinct races of people inhabiting the valley of the Nile at the same period: the first occupying the lower, the second the middle, and the last the upper part of the valley; and when the subject is better understood, there is no doubt that we shall be able to point out not only who they were and whence they came, but also their affinities and relationship with the surrounding nations, with whose history and manners we are better acquainted than we are with theirs.

The existence of these different races of people in the valley of the Nile was pointed out long ago by Blumenbach,* from an examination of the forms of the skulls of a number of mummies; one race he thought resembled the Theban statues, and these he was inclined to consider as pure Copts or Egyptians; another he considered as resembling the Hindoos; and a third, the Berbers. More recently some philologers seem to be arriving at a somewhat similar conclusion,—at least, Bunsen and the Germans seem to have agreed that there is an Indo-Germanic as well as a Semitic root in the Egyptian language; and if there are these two,

* "Philosophical Transactions," vol. lxxxiv.

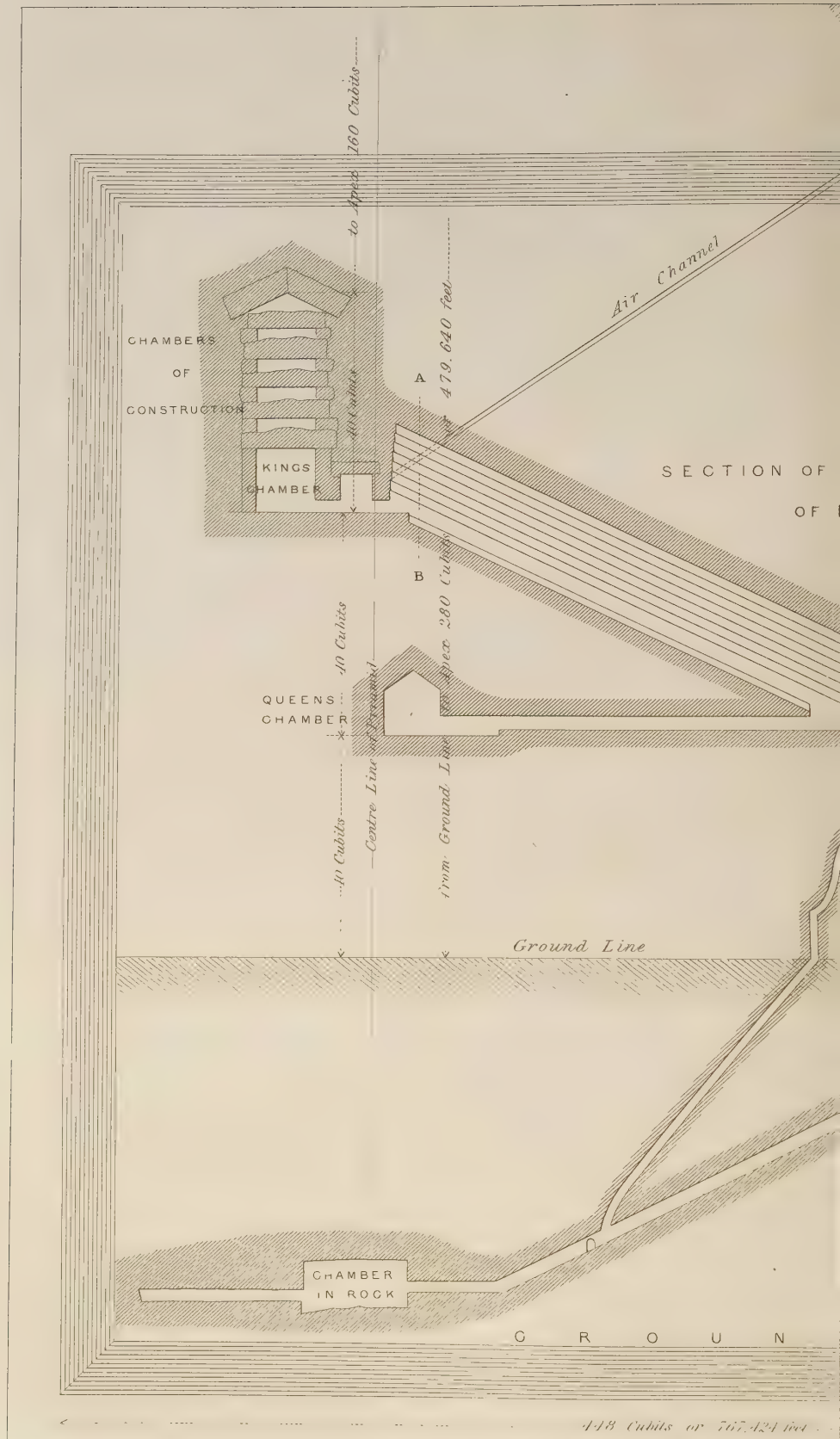
there certainly is a third that is neither one nor the other, but must be considered as a purely African element.*

If any of the three styles of art pointed out above belong to a Semitic race, it must be that of the pyramid-builders, who, from the absence of temples and the prominence of their tombs, do appear to have a considerable affinity with that race, or more correctly with the Pelasgi, though whether the latter were Semitic or not is not quite clear. The Indo-Germanic element must belong to the second style of polytheistic temple-builders, extending from the twelfth dynasty downwards, who might thus, like their style, be termed a proto-Doric race.

The Indian element can only have existed in the rock temple-cutting, tombless Nubians, but their affinity with India must have been through the Tamul races of the south of the Peninsula, not with the Arian races of the north; and if we had in India earlier specimens of architecture than are now known to exist, we might be able to settle a relationship which would be of no small interest to ethnography. At least 2000 years, however, elapsed between the last Nubian and the earliest Indian example, and the changes that must have taken place in so long a period have so obliterated all features of descent, that it is with extreme diffidence I hazard even a conjecture on the subject.

With regard to the affinities of the two former I think there can be but very little doubt, and I am also inclined to believe, that the much-hated Hyksos were of a race kindred to the earlier pyramid-building dynasties, perhaps invited by them to avenge the usurpation of the whole kingdom by the Thebans of the twelfth dynasty, whose pride the Shepherds humbled, and whose power they destroyed, and they were, in consequence, as hateful as could be to their immediate descendants of the eighteenth and subsequent dynasties, from whom we learn all we know of them, and whose traditions regarding the pyramid-builders, as delivered to Herodotus, are of much the same complexion as those regarding these invaders.

* Bunsen's "Egyptens Stelle," vol. i. | subject read to the Ethnological Section of
passim: and the dissertation by him on the | the British Association at Oxford, 1847.



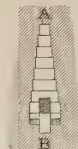
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W. A. BEVERIDGE

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MONUMENTS.

Almost the only buildings deserving the name of monuments that were erected in Egypt during the first ten or twelve centuries of her historical existence were the far-famed Pyramids, which, by the ancients as well as by ourselves, have always been considered as among the most remarkable works ever executed by man, and as technic attempts at fine art they are, and it is to be hoped will ever remain, unrivalled; for no buildings with which man ever cumbered the face of the globe are so utterly inartistic as these, and notwithstanding the respect we cannot withhold from them as the oldest buildings on the face of the globe, and the awe which we feel for their size,—for they are also the largest that we know of,—neither of these circumstances will entitle them to the rank of productions of fine art. Nor will their purpose, for though with us it is almost an absolute law of architectural criticism, that a building erected for a merely utilitarian purpose cannot be an object of art, and, on the contrary, that the absence of any such motive necessarily raises the building into that category, I could quote many instances to prove the contrary, but none more striking than these, where not one trace of a utilitarian motive either gave rise to the erection or guided their forms; yet they do not possess one quality to redeem them from being regarded as mere monuments of tyranny, and not as objects of art.

So deep has been the mystery that till very lately shrouded these strange monuments, that many ingenious speculations have been given to the world to prove that they were fifty things besides what we now know positively they were, and were only, namely, the tombs of the kings of the first ten dynasties of Manetho, but more especially of the fourth, and the dynasties immediately preceding or following after that one. Those of Gizeh, which are the largest and finest, and indeed, *par excellence*, the Pyramids, owing to the fortunate discovery, by Col. Howard Vyse, of the cartouches containing the names of Suphis, Sensuphis, and Menkera, in the Pyramids, in places where they must have been put before the building was finished, we now know must have been erected by the kings familiarly known to us as the Cheops, Chephren, and Mycerinus of the Greeks, and who, if my chronology is correct, reigned from the thirty-fourth to about the thirty-second century B.C.—5000 years ago!

One of the most striking peculiarities of these buildings is, their all facing due north (excepting the great one at Saccara, above alluded to), and that so exactly, notwithstanding the irregularities of the ground or their relative position, as to prove the existence of some strong motive for placing them in that position; though what that motive was, no one seems to be able to say. It is, however, so universal, not only in the Pyramids, but in all the tombs and buildings of that age that surround them, that the circumstance would appear to require explanation in any country, but much more so in Egypt than elsewhere; for this orientation was totally disregarded by all the kings, and in all the buildings, subsequent to the age of the Shepherd Kings. There are no two buildings at Thebes that face the same way, so much so, that the Thebans seem almost to have studied that this should not be the case; and in their tombs, so gratuitously irregular were they in this respect, that, in more than one instance in the Biban ul Moolk, the excavation of a tomb was stopped by running into another, while it might just as easily have been made parallel; and at a later age, in Nubia, all the pyramids there shew the same utter disregard of this principle, and face in every direction, but scarcely two of them the same way.

This careful orientation has led many to suppose that, besides being tombs, they were also observatories; and certainly it would appear that they were meant to mark the return of some astronomical phenomenon; but what it was, neither I nor any one else have yet been able to discover. The most plausible suggestion arose from their entrances being all on the north face, and sloping downwards on an angle varying from twenty-six to twenty-seven degrees, that they were meant to observe the pole-star. All, however, have failed to establish this point; and as, among the last, Sir John Herschel* has wasted his talents and science in the vain attempt, I will not presume to follow where he has failed: but as I think there can be very little doubt but that all these entrances were meant to be closed hermetically and concealed as soon as the king's body was deposited in the pyramid, I do not think it would be of much importance even if he had proved that the altitude of the pole-star was 26° in latitude 30° north.

Even if, however, an astronomical reason was found to fit exactly the

* Col. Howard Vyse's work on the Pyramids, vol. ii. p. 107.

passage of the Great Pyramid, we must find another for the second, where the angle of one passage is $25^{\circ} 55'$ and of another $22^{\circ} 15'$, and a different one for each of the twenty pyramids whose angles have been measured,* as they vary from $22^{\circ} 35'$ to $34^{\circ} 5'$, and comprehend every intermediate angle, but no two alike.

A much more constant measure is the angle which the face forms with the horizon, which, in twelve of the principal and best-preserved Pyramids, varies only from $51^{\circ} 10'$ to $52^{\circ} 32'$; and there may be errors in measurement which may reduce the difference to even something less. With regard to the entrance-passage of the Great Pyramid, it appears to me to be meant as half this. It could not be made horizontal, as that would have led direct to the secret chamber, and frustrated all those ingenious contrivances for concealment which form the principal motive discoverable in the construction of those buildings; and if at right angles to the face, it would have been so steep that men could not have gone up and down it, and it would have been most inconvenient to have hauled the sarcophagus or other great masses up and down it. This would not, of course, be the case in the smaller ones; and it appears the more likely that this really was the motive, for the steepness of the passage is almost in the direct ratio to the size of the pyramid.

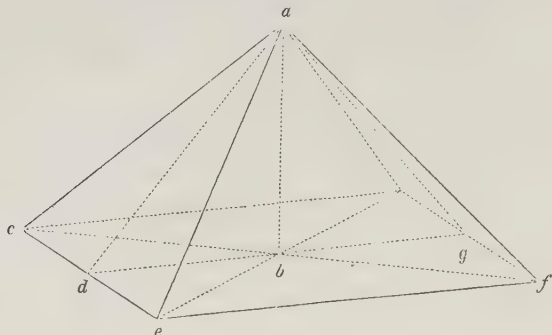
But even if this could be so explained, what could have induced the adoption of the other angle of 52° for the face? why not 45° , or half a right angle? or, better still, 60° , making the section equilateral? Had the height measured along the angle been equal to the side of the base, and consequently the angle at the summit a right angle, that might have been a sufficient reason for adopting it; but in the three principal pyramids the sides of the bases are,—

	Feet.		Feet.		
For the Great one	767	Length of edge	724	Angle	$97^{\circ} 3'$
2d	705	—	676	—	94 59
3d	352	—	332	—	97 23

So I am afraid this explanation will not suffice. At one time I thought I had found the solution in assuming that the Egyptians divided their circle into 28 lunar measures, each consequently occupying $12^{\circ} 857$.

* See Appendix to Col. Howard Vyse's "Operations at Gizeh," vol. iii. *passim*, and more particularly in the tables attached to the second vol. of Bunsen's "Egyptens Stelle in der Weltgeschichte," from which works all these measurements are taken.

Calling this a we have the following approximation for the three Pyramids of Gizeh, according to the angles of the annexed diagram :—



	Great Pyramid.	2d Pyramid.	3d Pyramid.	Calculated Angle.
$\angle adb$	$51^{\circ}20'$	$52^{\circ}21'$	$51^{\circ}10'$	$4a = 51.428$
$\angle dag$	77 19	75 4	77 38	$6a = 77.142$
$\angle acb$	41 28	42 30	41 18	$3a = 38.571$
$\angle caf$	97 3	94 59	97 23	$7\frac{1}{2}a = 96.428$
$\angle aef$	58 0	58 24	58 6	$4\frac{1}{2}a = 57.856$
$\angle eaf$	63 59	62 50	63 46	$5a = 64.285$
Passages	26 33?	25 55	27 34	$2a = 25.714$

Of course, one angle of a regular pyramid being given, all the rest are absolute; and the only question is, Did the Egyptians adopt the first angle as the seventh part of a circle? I confess that sometimes I cannot help thinking that they did, though it will be seen, from the varieties in the above table, that even if they adopted this or any other angle, they frequently deviated from it; and after all, perhaps, it was merely empirical, and adopted because it was thought to make the most pleasing and stateliest outline and form of such a building; and which may be, after all, the true solution of the riddle.

At all events, if neither of these will suffice, I can suggest no other, for I have tried every measurement they themselves afford, and every celestial phenomenon I could think of, whether relating to the sun, the moon, or the dog-star, and none of them will fit; and, except the above, none come near it; but from what we know of the antiquity and importance of the institution of the week, and the month of four weeks, I cannot help thinking that this is the real division of the circle which guided the Egyptian in the outline of these great buildings.*

* To this it will no doubt be objected | one of 365 days, and the great Sothiac
that the Egyptian year was a perfectly fixed | period was only the complement of the

The division of the Egyptian cubit into seven palms, which is one more than any other nation of the world ever adopted, and each palm into four digits, and consequently the cubit into twenty-eight digits, looks as if they adopted the same division for linear as for circular measures; otherwise why adopt seven? it was not the measure of a man's fore-arm, or of anything else that I know of, and, except in this mode, I never could account for its adoption.*

With regard to the internal arrangement, I have very little doubt but that Mr. Perring is correct in assuming forty cubits to be the leading measure; it occurs too often and too exactly for the coincidence to have been accidental; and as if following out the same division of the scale throughout, we find seven times forty, or 280 cubits, to be the exact height of the whole Pyramid; while, on the other hand, the length of the base, 448 cubits, is commensurate with this in the ratio of 5 to 8, as pointed out by Mr. Perring, and is divisible by 4, 7, or 28, or twice 4 times or 8 times the last number, and, consequently, similar multiples of the smaller ones. These two measures being given, the angles follow absolutely as a matter of course, so that, perhaps, the whole mystery of the Pyramid lies in the relative value of these two numbers, or in the attempt to reconcile a circular division with a linear one.

The annexed plan of the Great Pyramid, and section of that part of it containing chambers (Plate I.), both of which are drawn to the usual scale, will serve not only as a means of comparing its size with other buildings, but will explain all the peculiarities of its internal arrangements better than can be done in words, and contains all the information that has hitherto been obtained on the subject, either from Col. Vyse's or any other exploration; and unless there be some lower chamber cut in the rock at such a level as to admit the water of the Nile (which even at the height of the inundation never reaches so high as the floor of the present one), I do not believe

1460 quarters of a day required to bring that back to the original starting point. This is true as far as the lower kingdom is concerned; and if I thought the temple-building Thebans were the same race as the pyramid-building Memphites, such answer would be final: but if the latter were a Semitic race, as I suppose they were, it is certain they used the week as their principal division of time, and more than probable that they used a lunar month

and vague year, as the Arabs do at this day.

* Bunsen's "Egyptens Stelle," *loc. sup. cit.*, in which we find the following table:—

	English Feet.
1 digit	= 0.06117
4 do. = 1 hand's breadth	= 0.24471
28 do. = 7 do. = 1 cubit	= 1.713

thus giving the same division for lineal measures that I have adopted for the circle.

that much remains to be discovered by any future explorer of its mysteries.

No. 1.

Fig. 1.

Half usual scale for elevations.

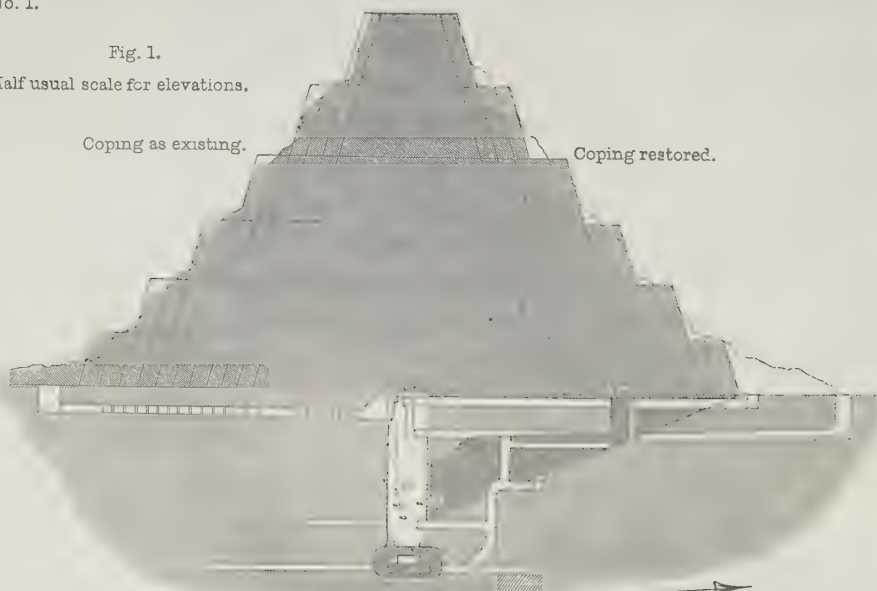
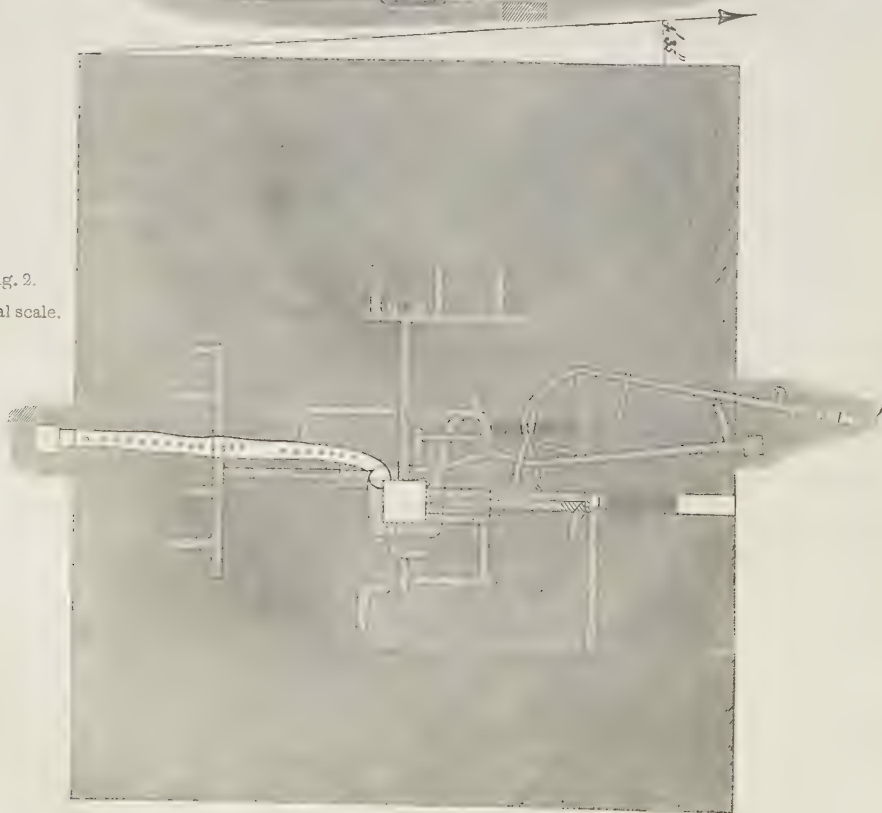


Fig. 2.

Usual scale.



Great Pyramid of Saccara.*

* From Col. Howard Vyse's work.

The other Pyramids differ in their internal arrangements, it is true, from this, but, except the great one of Saccara, not to such an extent as to render further illustration necessary in a work like the present. The aim of modern constructive art is, that the voids shall exceed the solids in the greatest possible ratio; and so successful have we been in this, that in some cast-iron erections the ratio is nearly 10,000 to 1 : in the Pyramids we almost see the opposite extreme, as the solid parts exceed the void spaces in as high a ratio, the two forming extremes of a scale whose intermediate gradation comprehends all that is beautiful in architectural art in the world.

With regard to the Great Pyramid of Saccara, which I excepted when speaking of the others, the annexed section and plan will shew at a glance how much it differs from the others, not only in the mode of construction, but in the disposition of the chambers.

It was Nestor l'Hôte,* I believe, that first suggested that the Pyramids were merely copies or structural imitations of the sacred mountain of Thebes, in which her kings were buried. Unfortunately for this theory, no kings are known to have been buried in the Theban hill till long after the date at which all the principal Pyramids were erected, and the similarity is somewhat forced, except so far as regards this one, which, however, it must be allowed, in its storied form does very nearly resemble the singular horizontal stratification of that hill, and it is difficult to account for such a deviation from the usual form, except on some such theory. A more important peculiarity, however, is, that it does not face the north, but points $4^{\circ} 35'$ east, which is so characteristic of a later date, and so utterly unlike any building anterior to the Shepherds, that I consider it as most important. A third is its having four entrances, one of which faces the south, which is not found in any other Pyramid. Another is, that the length of its sides is unequal, one being 230, the other 205 feet; which is also singularly characteristic of the symmetriphobia of the Thebans, but unlike anything else of this age. And lastly, all its chambers are excavated in the rock, and are so numerous and various in form and disposition, that it really looks more like an excavated mountain than a true pyramid. But besides all this negative evidence, it is admitted — and I think on sufficient grounds — that it contains hieroglyphic inscriptions

* “Lettres écrites de l’Egypte, en 1838-9,” p. 150 *et seq.*

which must be coeval with, or subsequent to, the eighteenth dynasty;* it is true it has been suggested that these may have been added then, but there is no other instance of any king of the lower empire adding inscriptions to the monuments of the older race. I cannot, therefore, look on this one as a building of the same class as the rest of the Pyramids, and am much more inclined to regard it as a building of the lower empire; and if I may be allowed to guess, I would suggest Smendis, the first king of the mixed 21st or Tanite dynasty, as the most likely person to have erected a building combining the two modes of sepulture of his predecessors. On the monuments he is known as Mandouftep, and he succeeded to his father, Aases or Aasen,† a private individual, or priest, with a singularly Shepherd-like or Semitic name (Assis,‡ or Asseth§), who managed during that troubled period to raise himself to the throne and found a new dynasty: possibly they were foreigners, but if of pure Egyptian stock, as likely to be descendants of the old pyramid-building kings of Memphis as of the temple-building Thebans. If this were admitted, it might also account for the mistakes of the Greeks in ascribing all the Pyramids to this age;|| for the priests of the lower empire were not likely to know much, at least certainly would not approve of, or mention, any change that had taken place in the mode of burying that had arisen between the two empires; and, knowing that this one belonged to them and their age, they told the Greeks that they all had been erected about this time, though even then they did not dare to falsify the names of the kings who were the real founders of them, but merely to alter their position in the chronology, while they knew the Greeks had no means of detecting the deceit.

There seems to have been nothing that the Egyptians prided themselves so much upon as the perfect unchangeableness of their institutions; and it is not, therefore, wonderful that they should have falsified the dates of the Pyramid-builders, which they certainly did, rather than admit that there were two races, and had been two religions, in Egypt.

* Mr. Birch in Appendix to Col. H. Vyse's "Operations at Gizeh," vol. iii. p. 56.

† Champollion, Figeac, "Egypte," p. 357. Rosellini, MS. book ii. chap. iii.

‡ Josephus, "Cont. Apion." i. 15

§ Syncellus, Canon of Egyptian kings. No. 32.

|| It is not a little remarkable that,

though Diodorus agrees with Herodotus in placing the pyramid-builders after the nineteenth dynasty, or "about 1000 years before his time," he should also quote the true date (book i. c. 5) "or, as some say, above 3400 years," which, according to my reading of Manetho, is exactly where they should be placed. *Vide supra*, p. 180.

Though I have not, as before hinted, one word to say in favour of these buildings as works of fine art, as specimens of masonry they are unsurpassed by anything that has been done since in any country or in any age. They prove that their builders not only possessed the art of quarrying the largest blocks of granite, for all the roofing blocks in the Great Pyramid measure twenty feet at least in length, and are of considerable width and depth, but also of transporting them from Syene to Memphis; of squaring and polishing them with the most mathematical precision; and lastly, of raising and setting them, either to a given incline or horizontally, with a minute exactitude which never, so far as I know, was equalled. There is, besides, infinite contrivance and skill in the way in which the pressure is discharged from any roofs or stones whose stability it might endanger; and the arrangement and fitting of the portcullises shew not only ingenuity, but great practical dexterity in execution. As the Pyramid was designed, so it was built—as built, so it stands—there is neither settlement, nor crack, nor flaws, discernible in any part of it; and considering their mass, and the enormity of the weights to be sustained, this is no small triumph; and displays such skill as could only be the result of long ages of experience, and under the most favourable circumstances; and which to my mind is far more astonishing than even their mass.

If we are to apply to them the usual human test of success in attaining the result aimed at, I fear they must be judged as having failed; for, as far at least as is now apparent, all the efforts of the builders were directed to keeping the body of the founder concealed and intact during the 3000 years that it was requisite it should remain so, before being “raised from the dead.” Had this been the only motive, a deep pit in the Lybian desert would have answered better: once the moving sand had passed over it, men might have searched for ever and never found it again. But however much men desire immortality hereafter, like other mortals these primæval kings seem also to have hankered after a certain mundane durability of fame in the meantime—and besides a tomb, to have desired also a monument. Whether or not they effected both objects, we probably shall never know; for all the Pyramids have been opened, and most probably by the Egyptians themselves under the Greeks and Romans, when respect for the dead had passed away: but unless it was done even earlier than this they had rested the appointed time, or nearly so. But is it quite clear even now that the sacred deposits have been disturbed? We have, it is true, discovered chambers with sarcophagi in them, and they

are empty ; and it must be confessed it appears strange that so much trouble should have been taken to admit of the introduction of one *after* the building had been finished, unless it was intended to contain the body ; and so many contrivances resorted to for shutting up and concealing the passages after it was once safely deposited there. But all tradition points to the burial-place as under the Pyramid, surrounded by the waters of the Nile.* And the deep wells and lower galleries would seem to confirm such an idea, for of what use are they if it was not this ?† Discoverers on the spot can alone settle these and many other questions, which arise at every step ; for if ever buildings were built to puzzle and perplex mankind, it is these Pyramids ; and it would be easy to write a volume of guesses about them, and it has been often done. But I must be warned.

Though from the testimony of the ancients, and the probabilities of the case, it is almost certain that when first erected the Pyramids were adorned with paintings, or at least hieroglyphics, which would have enabled us, had they been preserved, to judge of the state of the arts at the time ; as it is they enable us to judge of the art of masonry alone : but fortunately there are tombs cut in the rock and structural edifices in the neighbourhood, which we now know to be synchronous, and which are covered with paintings and other ornaments to an extent quite sufficient to shew how far the Egyptians had then advanced towards that point of perfection which they never passed. We have here the same representations of animals, and of men occupied in the same trades and with the same amusements, as are depicted near 2000 years afterwards at Thebes, with very nearly the same degree of skill, and in the same manner, peculiar to this people, of first engraving the subject in the wall in intaglio rilievo, and then heightening its effect in colour, and mixing up the purely representative picture with one half imitative, half phonetic, repeating almost the same thing — a record of the life and wealth of the occupant of the house or tomb. They are stiffer, it is true, and not so well conceived or so freely executed as the more modern paintings ; but there is infinite care bestowed in the details : and the representation of things is quite equal to any executed after the Shepherd invasion.

* Herodotus, ii. 124.

† It is a curious fact, that in most of the great Mohammedan tombs of India there are two sarcophagi. In that of Akbar, for instance, at Secundera, the apparent tomb

is on the top of the monument ; but immediately below this, in a vault on a level with the ground, is another somewhat similar, and covering the true grave : the same occurs at the Taje Mehal, and in many others.

There are not, that I am aware of, any statues, properly so called, that can claim to belong to this age; though this may be accounted for by the proximity of Memphis, or at least of Cairo, which has obliterated all the loose fragments of that age, and removed every thing that was removable, so that, even if they had been as numerous as they became during the eighteenth dynasty, we should not be surprised at their disappearance. Perhaps the same reasoning may account for there being no specimens of architecture, properly so called—no temples, or colonnades, or porticoes, at all commensurate with the Pyramids in size or conception. They may have existed; it would not be difficult to argue the matter on either side, but my own impression is, that the Pyramid was the architectural utterance of that age,—the tomb and the temple, the monument the kings were most anxious to erect for their own present glory and future fame; and that they were also the sacred edifices of a people who looked on their kings as demigods at least, and were content to bow their necks under them in a servitude more complete and abject than ever was known with any other people or in any other age, as these monuments themselves witness with a distinctness that requires no further testimony to corroborate it.

SECTION III.

LOWER KINGDOM.

TWELFTH DYNASTY.

WHATEVER system of chronology we adopt regarding the dates of the Egyptian dynasties, all must, and I believe do, admit that the invasion of the Hyksos took place between the twelfth and eighteenth dynasties; and there is as little doubt that the Sesostris, whom Manetho places in the former, is, and can be no other than the Osirtasen of the monuments.* Yet so far as his buildings are concerned, he and his dynasty belong to the lower empire, and not to the older one. The eleventh and twelfth dynasties seem certainly to have been of a different family, most probably of another race altogether from those that preceded them. At all events, with the buildings of the twelfth dynasty we enter on a new architectural epoch, all the forms of which are, with the fewest possible exceptions, different from all the forms of the style that preceded them, and certainly mark one of the most striking revolutions that took place in the history of Egypt.

This Osirtasen, or Sesostris, of the twelfth dynasty, was the first king, so far at least as we know, that erected an obelisk. Like all the rest, it stands on the east side of the Nile, at Heliopolis, as contradistinguished from the Pyramids, which are all on the western bank; and though not so large as those of succeeding kings, (being only 67 feet 4 inches in height, while the Lateran obelisk is 105 feet, and that at Karnac (of Thothmes I.) is 93 feet 6 inches, exclusive of their pyramidal tops), still it is as perfect, both in form and in the execution of its hieroglyphics, as any one that ever was erected in Egypt.

To this monarch we also owe the first temple of which any vestige now remains; for in the centre of the great palace at Karnac, the pillars and architecture of the small sanctuary, of calcareous spath, bears his

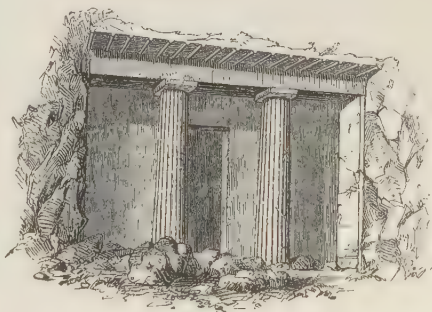
* This, I think, is pretty generally admitted. Bunsen does not hesitate about it in the least, but considers it quite as a settled point in the chronology, "Egyptens Stelle," vol. ii. p. 282 *et seq.*

name. It is possible it may have been destroyed by the Shepherds, and was re-erected* by the kings of the eighteenth dynasty on the spot where it now stands: but the original building was his, without doubt; it was always looked on with the highest veneration by his successors of the eighteenth dynasty, and it formed, indeed, the nucleus round which was grouped that immense pile of buildings known usually under the name of the Temple of Karnac.

The best means, however, that we have of judging of the state of the arts during his reign, is afforded us by the paintings of the grottoes of Beni-Hassan, on the right bank of the river in Middle Egypt. They are not, it is true, conceived on the same scale, or executed with the same splendour, as the royal tombs of Thebes, but it must be borne in mind that these are private, not royal hypogea; and they were designed, not to perpetuate a nation's glory, or to embody all the mythological mysteries of the resurrection, but merely to represent the familiar domestic scenes of Egyptian life, and to record the wealth and the amusements of those whose final resting-places they were to be. As such they form an intermediate grade between the sculptures of the Pyramids and those of Thebes, being neither so carefully executed as the first, nor so boldly as the second; but, in fact, the difference between the three series is so slight that it requires a practised eye to detect them.

Their architecture, however, is perhaps more interesting than even their paintings; not, it is true, on account of either its beauty or magnificence, but as affording the earliest specimen of columnar architecture in the world; and, also, from its being of a style so similar to the Doric of the Greeks as to have merited the title of proto-Doric, which, I have no doubt, is correctly applied to it, though the Greeks did not build any edifice with such pillars for more than fifteen centuries after these were excavated. It also proves that then, as ever afterwards, all these excavated edifices,—if I may so call them,—were only copies of

No. 2.



Grotto at Beni-Hassan.†

* Nestor l'Hôte, "Lettres écrites de l'Égypte," p. 191.

† From a drawing by Barry in Gwilt's

Chambers, vol. i. p. 38. Corrected from Rosellini, "Monumenti Civili."

structural buildings, for the parts which were in stone, and those which must have been of wood, are correctly imitated here, which could not have been the case had the architecture arisen originally from rock-cut forms. The caves of Petra, Lycia, and India, have, however, abundantly proved this already.

Another peculiarity of the architecture is that the roofs are slightly coved, almost as if the use of the arch was then known; this, however, I believe, was not the case, but that the curved line was adopted merely as ornamental, or perhaps to give lightness to the roofing-stones without diminishing their strength, as was afterwards done at Abydos during the eighteenth dynasty. Though nothing, I confess, would surprise me less than the discovery of an arch as old as the Pyramids, there are more wonderful and more singular things in Egypt than this would be.

There may have been numerous edifices erected in Egypt between the period of the great Pyramids and that of these tombs, but both Memphis and Heracleopolis, which were then the capitals of the country, have perished entirely; so much so that we can now scarce trace their position, and not one stone of the edifices that once adorned them is left standing upon another. In other countries this would be a serious loss in attempting to elaborate the history of the arts; but so slowly did Egypt progress that in five centuries we scarcely perceive the change, or are aware that there is a gap in the series; and as far as the history of Egyptian art is concerned, it is sufficient to dwell on the three typical eras, of the fourth dynasty for the Pyramids, the eighteenth for the palace temples, and the age of the Ptolemies and Cæsars of the revived style of temple-building in their time.

There is, however, another monument of this dynasty—the celebrated Labyrinth, which must not be passed over entirely in silence. It was built, according to Manetho, by Mares or Lambares, the successor of the above-named Sesostris or Osirtasen, “as a tomb for himself;” and we have several detailed descriptions of it by the ancients, more especially Herodotus and Strabo: the former actually saw what he describes, but his description is so marvellous, and differs in so many respects from that of Strabo and the incidental allusions to the building in other authors, that no successful attempt has yet been made to restore the fifteen hundred chambers the former saw or to reconcile them with the twenty-seven palaces which the latter describes as belonging to each one of the twenty-seven nomes into which Egypt was divided.

The site of the building is now, however, perfectly ascertained, and a sketched plan of it by Mr. Perring is given in the Appendix to Col. Howard Vyse's work, and since his time the whole site has been carefully excavated by the Prussian scientific expedition under Lepsius; so that the facts of the case are perfectly known, though not published, and I shall not therefore indulge in any attempted theoretical restoration, which can be of no value compared with the observed facts and measurements, which will, no doubt, be soon given to the world.

Herodotus mentions a small pyramid in one of the angles of the building to which there was an underground entrance, but he does not call it a tomb; and the expression of Manetho, that the Labyrinth was built by the king for his tomb, still leaves it uncertain whether the pyramid was a part of the original erection, or whether it was not an addition of some of the aberrant dynasties who occupied the throne of Egypt during its period of decline, like the great one of Saccara. As I am not aware that any hieroglyphics have been found on the pyramid itself, I fear that even when the Labyrinth is restored to its proper form, and ascribed to its rightful owner, this may remain an open question; and it is of interest here, for if built by the Mares of this dynasty, it would shew either an affinity to the former races, or a persistence in using a form after the meaning was lost, which would be interesting in the history of art. But till the results of Dr. Lepsius's exploration are made known, it is needless speculating on this.

SHEPHERDS.

Whether it was the imprudently extended incursions into Asia of the twelfth dynasty that provoked the retaliation of the Hyksos, or whether they were invited to invade Egypt by the now oppressed Pyramid-building races, is a question of little moment to the history of art, for of that they have not left one trace in the country they possessed during 511 years;—it may be that they were not a building race, or that their monuments were at Memphis and in Lower Egypt, and have perished there with so many others whose loss we deplore; or, what is more probable than either is, that every trace of them and their dominion was carefully destroyed and obliterated by the Pharaohs of the eighteenth and nineteenth dynasties, to whom the “name of a shepherd was an abomination,” and who apparently had the power as well as the will to wipe out all that could tell

posterity of their disgrace and their country's long subjection to a foreign and hated race of invaders.

EIGHTEENTH DYNASTY,

COMMENCING 1829 B. C.; D. Æ. 8171.

Name in Lists.	Name on Monuments.	Years.	Months.	
1 Amosis	Amenophis I.....	25	4	
2 Chebron	Thothmosis I.	13	0	
3 Amenophis	Thothmosis II.	20	7	
4 Amesses	{ Amensé, queen-widow of } Thothmosis I.	21	9	
5 Mephris	Thothmosis III.	12	9	
6 Mesphramuthosis ...	Amenophis II.	25	10	
7 Thmosis	Thothmosis IV.....	9	8	
8 Amenophis	Amenophis III.....	30	11	
Interregnum.....		50	0	159 10
9 Orus	Her	36	5	
				86 5
10 Rathotis	Rhamses I.	12	1	
11 Acencheres	Menephtha I.	32	8	
12 Rhameses	Rhamses II.	5	5	
13 Armesses	Rhamses III., or the Great	68	2	
14 Acencheres?	Menephtha II.	5	0	
15 Amenophis	{ Toaser, a queen, married to } Menephtha III.	19	6	
16 Ramesses	Rhamerri	5	3	
				118 1
				393 4*

Ended B.C. 1437; D. Æ. 8564.

* The fixed points in the age of this dynasty are the initial and final dates, and the sum of 393, as taken from Josephus, "Contra Apion." i. 26; and he repeats the same figures, i. 16, and ii. 2, besides including them in his calculation of 518 years between the expulsion of the Shepherds and the Exode, i. 26. As, however, the sum of the reigns enumerated by him amount only to 333, Mr. Cullimore has suggested that two which are quoted by him at only 9 years each, should be 39 respectively, which would make up the required amount. I have preferred inserting 50 years for the Sun-worshippers, as a mere hypothesis, which may be altered as disco-

veries are made. It is the monuments only that can settle the question definitively, but it may be long before they can do so—if they ever do. For if, for instance, we found a date of the year 30 of a king's reign, we may be certain that he reigned at least that number of years, and correct the tables to that extent, if they called it only 9; yet this would not prove that he may not have reigned 40, or 50, or even 60 years: so that, though they may limit the shortest time the dynasty could have existed, we must be content for the present, at least, with the written testimony as to their extreme duration.

Referring to the above chronological table of this dynasty, I shall now proceed to mention the principal works of these Pharaohs, and then make such remarks on their style as may appear requisite; I shall not, of course, attempt to describe them all — nor, indeed, have I sufficient space to describe even one completely, but must for this refer the student to more extended works, though unfortunately they are all, from the size and multiplicity of the objects they refer to, of such a size as to render them very difficult of access to the general reader: but I would here confine myself to such observations as bear only on the general history and general forms of art.

Amenophis, with whom the dynasty opens, commenced rebuilding the great temple of Karnac on the site of the one which was formerly erected there by Osirtasen, but which had been destroyed during the time of the Hyksos. These works were continued by his successor, Thothmes I., who also commenced the older temple at Medinet Habou, and the buildings at El Assasif, under the Lybian chain.

The second Thothmes, or Thothmosis, continued all those works of his predecessor, besides building a small temple at Esneh and one at Semné in Nubia.

Amensé, the queen (widow, apparently, of the first, and mother of the second Thothmes), still continued all these works with great vigour, and erected the two obelisks at Karnac, one of which is still standing, and is the largest and finest now found in Egypt. The next king, however, Thothmes III. (generally supposed to be the Moeris of the Greeks), far surpassed his predecessors in the magnificence of his works; and though his reign was short, it appears to have been one of profound peace, and all the resources of the country to have been dedicated to internal improvements. He completed the temple of El Assasif, the old temple at Medinet Habou, and also the old temple of Karnac (shaded lighter in the plan, Plate II.), thus completing all the edifices at Thebes which his predecessors had laboured at uninterruptedly since the expulsion of the Shepherds. It is to him, besides, that we owe the greater part of the temples at Wadi Halfa and Amada in Nubia. The obelisks at Alexandria, at Constantinople, and in front of the Lateran Church at Rome, were all executed during his reign.

His two next successors, though reigning for the period of thirty-five years, have left less behind them in Egypt than almost any kings of this

dynasty. In Nubia, however, their names are frequently found ; but it seems the nation was, during their reigns, constantly engaged in wars in that country, and had less leisure for the arts of peace than during the previous reigns.

The son of the last, however, Amenophis III., the Memnon of the Greeks, was not only one of the most illustrious kings, but one of the greatest builders of this race. Finding, however, as mentioned above, the great temples of the capital finished by Thothmes III., instead of adding to them, as was afterwards done at Karnac, he commenced two new ones. The great temple of Luxor, on the right bank, which he finished from the northern extremity to the centre court ; and he commenced, and probably completed, what was, perhaps, a still more splendid work, the Memnonium, on the Lybian side of the river. Judging from the traces that remain of it, this must have been one of the most splendid monuments of Thebes ; but it unfortunately was situated too near the Nile, on the cultivated plain, and the rise of the river has facilitated its destruction and the soil buried its remains, so that little is left above ground except the two seated Colossi (woodcut, No. 11), which form so conspicuous an object on the plain of Thebes, and the southern one of which was so famous in the ancient world as the vocal statue of Memnon. He also built the great palace temple of Soleb, above the second cataract on the borders of Ethiopia, by far the finest structural building beyond the limits of Egypt, and evidently the model from which the Rhamession and palace of Medinet Habou were taken ; unless, indeed, they were copied from the Memnonium, which it probably resembled. He erected also the Mammeisi at Elephantine (woodcut, No. 6). His son, Horus, carried on his father's works at Luxor, and probably completed the Memnonium, though we have little means of judging of what he did there.

The breach that occurs somewhere here (for it is not quite clear whether the sun-worshippers came before or after Amenophis III.) in the regular series of the kings of the eighteenth dynasty is not, of course, alluded to in any of the chronological tablets found on the monuments, and is slurred over in all the lists of Manetho ; but we have been enabled to restore the names of the kings, partially at least, from the monuments. One of them was called by Champollion, Skai, from a mutilated cartouche, and is now generally known by that name. His tomb exists in the western side valley, at Biban ul Moolk. Its sculpture was deli-

neated by Nestor l'Hôte, and published as a sequel to Champollion's great work.* Another king, known as Atinré Bakhan, is familiar to us from the sculpture of Tell el Amarna, and several other names have been exhumed by the industry of Messrs. Prisse, Lepsius, and Sir Gardner Wilkinson: seven, at least, are known.† From these cartouches they seem to call themselves sons or successors of Amenophis III.‡, but if they were, they were of a different religion, being worshippers of the sun, and having no respect for the Egyptian gods, and, from their portraits, would appear to have been of a different race, and they were certainly, either from their blood or their heresies, hateful to those that succeeded them, for no sooner were they gone than their monuments at Thebes were destroyed, and the materials used to erect other buildings; so that it is chiefly from the materials used in the interior of the walls of some buildings of their successors that so much has been made out of their history as we now know.

After they disappeared, the direct line of the great eighteenth dynasty resumed its sway with even more splendour than had marked the reigns of those kings who had effected so much during the first half of their great epoch; and though they had erected such splendid monuments, and extended their conquests into Mesopotamia, and, perhaps, even into Europe, it was the succeeding family of Rhamesidæ who raised the glory of Egypt to the highest point it ever attained, and the monuments we have now to speak of partake of this increased grandeur in a manner not to be mistaken.

The reign of the first Rhamses was short, and he did little more than continue the works at Luxor; but his son, Menephtha, was one of the most illustrious sovereigns of his line. He commenced, and nearly completed, the palace at Gournah (properly called the Menephtheion); but his greatest work, and, indeed, the greatest work we know of in Egypt, was the splendid hypostyle hall he added to the palace at Karnac (Plate II.), of which more hereafter. His tomb, (woodcut, No. 10), commonly known as Belzoni's, is one of the largest and most beautiful in the valley of Biban ul Moolk. The eldest son of this monarch continued his father's works at Gournah, and left some splendid remains at Betoually and other places in Nubia; but dying after a reign of little

* A fragment of his sarcophagus, with the cartouche, is in the museum of the Royal Asiatic Society.

† Wilkinson's "Egypt and Thebes," ii. 255.

‡ Bunsen's "Egyptens Stelle," iii. 88.

more than five years, he was succeeded by his younger brother, Rhamses III., or the Great, who not only surpassed all former kings in the extent of his conquests, but the length of his reign enabled him to complete a greater number of buildings than any of his predecessors. His greatest work was the Rhamesion (woodcut, No. 3), on the left bank of the Nile, between the palaces of Amenophis and Menephtha, and is one of the few buildings begun and finished on the same plan and by the same king; and though no part of it can equal the splendour of his father's hall, it is one of the most uniform and perfect buildings in Egypt. He also finished the temple at Luxor, but, owing to the importance the palace at Karnac had acquired from his father's additions, he turned the building so as to face it at right angles, which is the cause of the singular elbow that appears in the plan of that edifice. To him also we owe the two temples of Abydos, though both appear to have been commenced by his father; and in the Delta almost every city, of which remains have been found, bears testimony to his magnificence, more especially Sais, whose temple and ten obelisks all bear his illustrious name.

He also excavated the two great temples at Ipsamboul (No. 9), in Nubia, which are among the most striking monuments of Egypt, though far from being the most pleasing. Besides those works he completed the palace at Karnac, and added the greater part of the sculptures that adorn the external walls, or wings, as Strabo calls them.*

The remaining kings of this dynasty did little worthy of their ancestors, and Egypt, as if exhausted by such mighty efforts, seems to have paused awhile till she was again awakened to a still greater but expiring effort, under the fourth Rhamses, called also Mai Amoun, the first king of the nineteenth dynasty, whom I believe to be the Sesostris of the Greeks. If his buildings are not so splendid or numerous as those of the last dynasty, it must be remembered that Memphis was at least the principal place of his residence, and we know from the Greeks that the principal buildings of Sesostris were in that capital. Still the great temple of Medinet Habou, which is entirely his, may challenge comparison with any building in Egypt, if the whole could be seen; unfortunately, however, nearly a half of it is buried in ruins. He added the small temple in front of the hall at Karnac, and the great southern temple at the same place (woodcuts, Nos. 4 and 5), which anywhere else would be considered a great work.

* Strabo, xvii. p. 806, ed. Cas.

His tomb, generally known as the Harpers, or Bruce's tomb, is the most beautiful of all those at Biban ul Moolk.

His works close this splendid epoch, for though his son, or sons, succeeded him, and reigned in peace for many years, they have left almost nothing—at least, at Thebes—except a few additions to the sculpture of their father's temples; but from the time of his death that long period of decay and degradation seems to have set in on Egypt, heralded apparently by an episode so familiar to us in the story of the Exode of the Jews. It may be that they resided at Memphis, and their works have perished with that city; but this is unlikely, for their tombs exist at Thebes, which, therefore, if not the political, must have continued the religious capital of Egypt, and its temples would have been the object of their care and munificence had they continued to walk in the steps of their forefathers. Neither they, however, nor the twentieth, nor the twenty-first dynasty, seem to have done much worthy of note, unless we ascribe to the latter the great Pyramid of Saccara. Egypt had again sunk, from some cause unexplained, into a state of anarchy, or, at all events, lethargy, from which she was only roused by foreign conquerors; and it remained for the foreign kings of the twenty-second or Bubastite dynasty, to erect the next great monument, the western court with its pylons, which completes the great temple at Karnac.

Again the arts seem to have been reviving under the twenty-sixth or Saite dynasty, and the names of Psammeticus and Amasis are again found on buildings of a Pharaonic class; but before much was done, the rekindling flame was extinguished by the Persian invasion and the barbarous Vandalism of Cambyses.

PROGRESS.

Though it is, generally speaking, so extremely difficult to trace any thing like progress in arts of the Egyptians, it certainly is more observable in the works of the eighteenth and nineteenth dynasties than at any other period, and is so distinct that even the most superficial examination of the buildings at Thebes will enable any one to detect it. The first kings of the eighteenth dynasty thought they were erecting a monument worthy of their age when they built the small temple, with its narrow cells, which surround the sanctuary of Osirtasen at Karnac; and by far the greatest work of the age is the caryatide court that

precedes this building (erected by the first Thothmes), but which is narrow and insignificant, and of very inferior design in every respect to those of the Rhamesion or Medinet Habou.

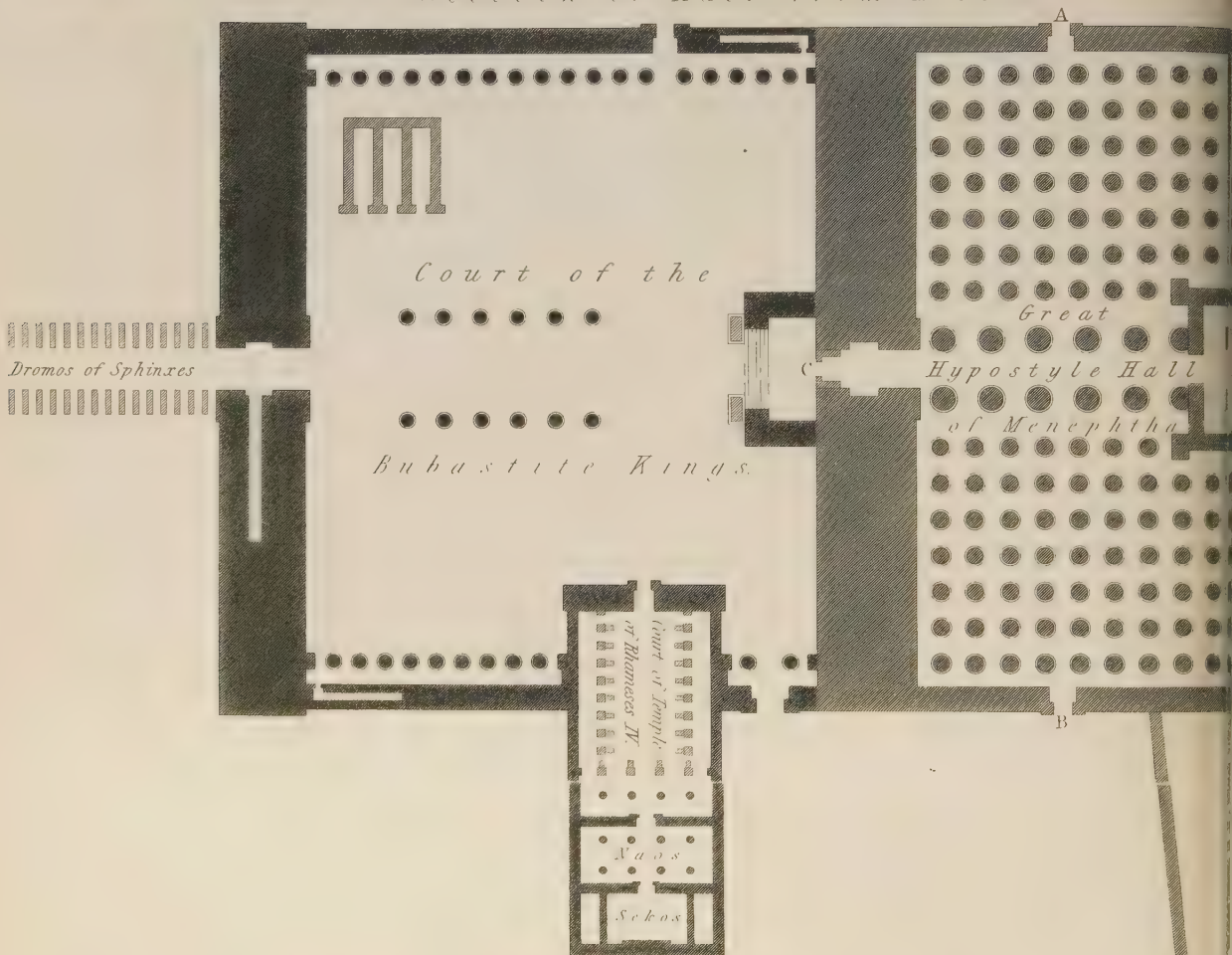
The next great work was the palace of the third Thothmes, at the eastern extremity of the same inclosure, but as a work of art it is, perhaps, the least satisfactory of any in Egypt. It is larger than any one that preceded it, and more ambitious in design; but the arrangement is bad, the details ill understood, and, except in mass, it is altogether unworthy of his age. His two temples on the other side of the river are more artistic in design, but small in their proportions; that at Medinet Habou measuring only 150 feet by 45, including the court, and that at El Assasif still less. Nor do they display any thing grandiose in design that could redeem their smallness of size. Very great progress is observable if we compare these with the buildings of the third Amenophis (the Memnon of the Greeks), whose palace temple at Luxor shews an immense advance on all the designs of his predecessors; and, so far as we can judge from what remains of the Memnonium, it must have surpassed even this.

However splendid his buildings may be, they are entirely eclipsed by the works of the next great monarch of the race. For, both in grandeur of conception and beauty of detail, in the Hypostyle Hall at Karnac, Menephtha surpassed all that had been done, and raised Egyptian architecture to a pitch of perfection it never surpassed. His son, Rhamses the Great, in his works, fully sustained the high standard to which his father had raised them, and though he never built any thing so magnificent in itself as his father's hall, the Rhamesion is more elegant in its details and more complete in its plan than any other building in Egypt—qualities which go far to enable it to compete with the gigantic conceptions of his father. If, however, he cannot be said to have advanced architecture, he did more for painting than all his predecessors, as may easily be perceived by comparing the historical paintings of his reign with those of Amenophis III. or Thothmes III.; for though the hieroglyphics remain the same, both in form and execution, his are certainly the first great historic pictures which gave such interest and such life to the walls of the temples of Thebes.

Another stage of art was reached under the first king of the nineteenth dynasty, but it was, unfortunately, one of decline—not in conception so much as in detail and execution; but no one, I think, can

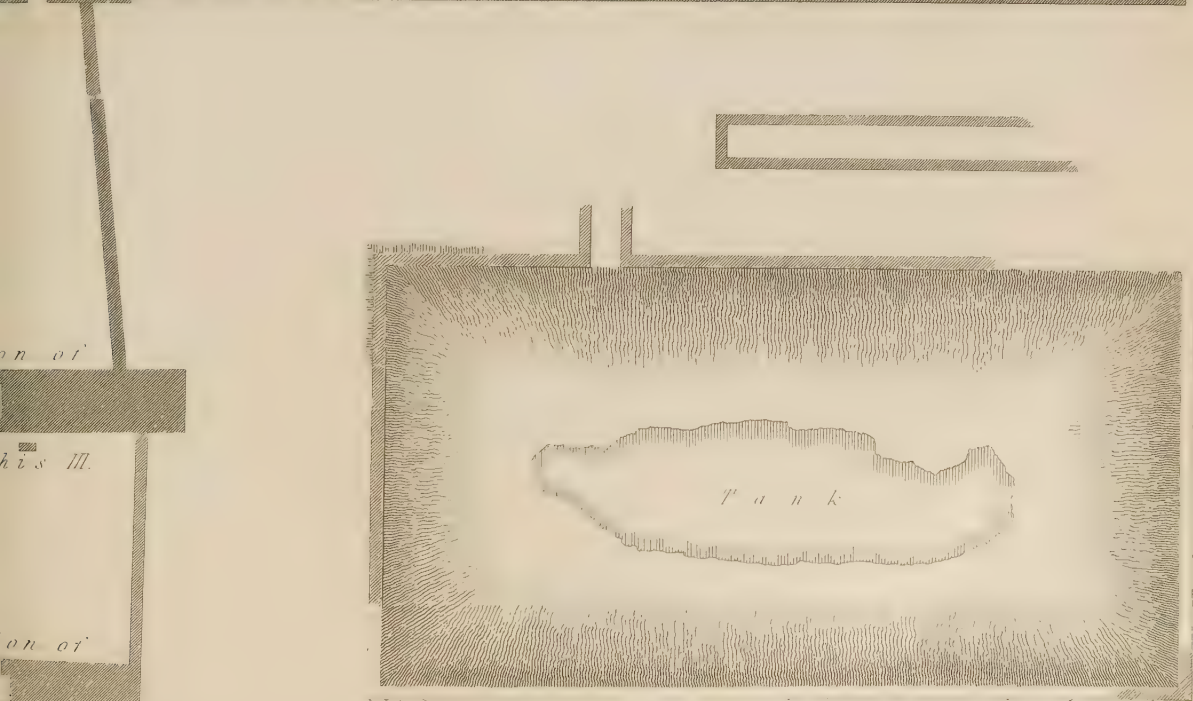
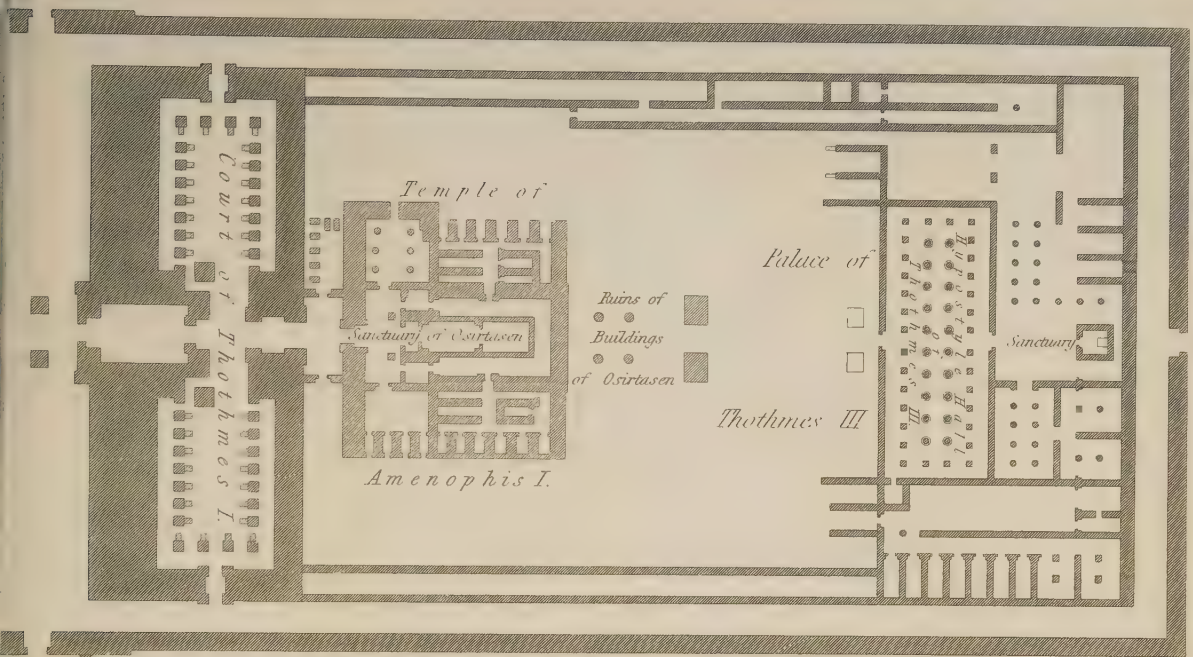
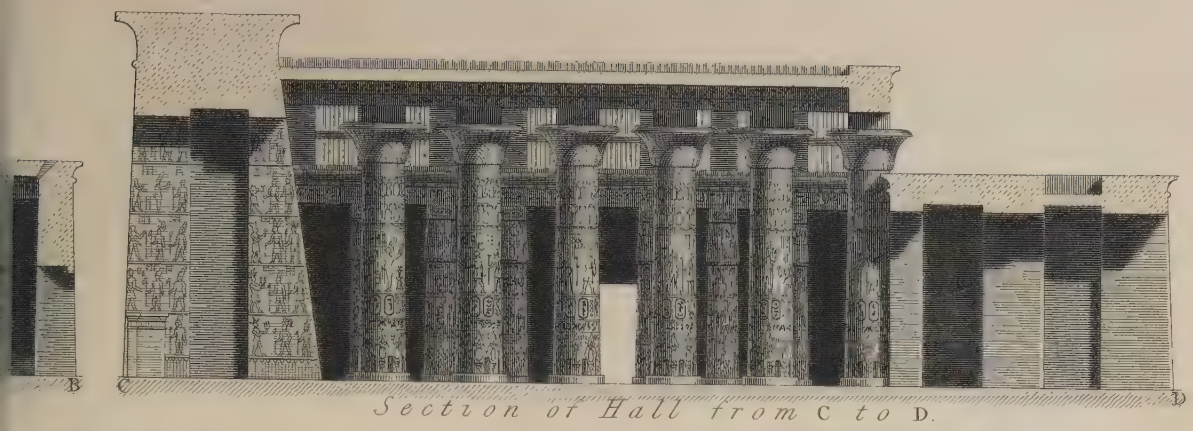


Section of Hall from A to B.



TEMPLE OF KARNAC

at Thebes



compare the sculptures of the Medinet Habou with those of the Rhamession or of Karnac, without perceiving that the arts had passed their culminating point, and had lost that purity and elegance which characterised their zenith. There is a struggle for false effect, and an attempt to attain it by tricks and deceptions, very unlike the vigour of repose that may be observed in earlier works; and, as is always the case when the arts have passed their highest point and condescend to this, it is not difficult to see that they are verging fast to that decay which treads so closely on the heels of perfection, and which overtook them even amidst the even tenor of their Egyptian career.

THE HYPOSTYLE HALL AT KARNAC (Plate II.).*

Of all the buildings of this or of any age of Egyptian art, the Hypostyle Hall at Karnac is beyond all doubt the most splendid, not only as regards size and decoration, but also the most perfect as a specimen of art, and to it, therefore, I will principally confine what I have to say on the subject; for if we can form just notions regarding this there will be no difficulty in appreciating the merits or defects of smaller specimens.

In size it must yield to the Pyramids and such buildings as the Amphitheatre of Titus or St. Peter's at Rome; but it covers three times the space occupied by the Parthenon, is about of the same dimensions as the Temple of Jupiter Olympius at Athens, as the Temple of Peace (Basilica of Maxentius), and of our largest Gothic cathedrals, such as Amiens, Chartres, or Cologne. So that, though it is not the largest hall in existence, it has dimensions quite sufficient for all the purposes of artistic effect, and its architecture is sufficiently good to prevent size being its only, or, indeed, its principal merit: more is due to the perfect harmony that reigns through every part of it, and the adjustment of the whole so as to produce the effect desired.

In plan it is a perfectly regular rectangle of two squares, being about 170 east and west, and 340 north and south;† it is again divided into four equal parts—one of which, in the centre, is higher than the side-aisles, its

* From the plan in the great French work on Egypt, corrected by that given by Nestor l'Hôte in his letters; and Wilkinson in his "Topography of Thebes."

† It does not, as a matter of course, face

exactly in these directions, but sufficiently so to prevent confusion in speaking of the western face as that towards the Nile, and the southern one as that turned to Luxor.

height being equal to its width ; and its roof is raised above them one-third, so as to admit light to the hall through a range of clerestory windows, precisely as is done in Gothic cathedrals.

On looking at the plan it will be observed that the central ranges of columns, which are 64 feet in height by 30 in circumference, do not stand in the same lines north and south as the side ranges, which, according to our modern rules of art, would of course be put down as a defect ; but I cannot consider it as such, nor even suppose that it arose from the usual symmetriphobia so observable in all the buildings of Thebes, but that it really was done to heighten the effect : for it will be observed that the whole light was admitted to the central compartment, either through the two great doors at either end of it or by the clerestory ; so that any one standing there was in the blaze of light, but looking to the right or left, could not penetrate the apparently illimitable gloom of the wings, but would see column after column, each less distinct than the other, till at last they faded altogether from his sight. In like manner, any one standing in the shade of the sides, and looking towards the centre, would see these great columns standing in the full light, and half closing the vista ; so that, except in one of the ten compartments into which it was divided, his eye could not look across the centre, or guess to what length the hall extended in that direction. But with all this artistic concealment of the limits of the hall, there must have been sufficient light, in that climate, to see to read in every part of it. I do not know any other building in the world in which this effect has been attempted, but I cannot conceive any thing so well calculated to give apparent size to even small dimensions, or to add so much to those that were already considerable.

As compared with the arrangements of our Gothic cathedrals, there is another defect—what I was long inclined to consider really one—which is, that the centre aisle or nave is really a transept running across the shorter diameter of the hall, thus losing the splendid perspective effect it might have possessed had it traversed the whole length as it did in our churches. Had that arrangement been adopted here, the effect last pointed out would have been lost, which would have altered the whole character of the building ; but the true motive for it was, I believe, that the hall is only a part of a great whole—the vestibule, in short, of the temple, and that the vista extended not only from one side of the hall to the other, but between the obelisks and through the caryatide court to the palace of Thothmes and the propylon beyond ; and on the other hand, through the dromos of pillars and

sphinxes, and the propyla, down to the Nile itself. It was only the central point of a great whole, and must be judged as such ; not like a church, as a whole in itself.

Perhaps the best mode of arriving at a just estimate of this building would be by comparing it with some other similar well-known edifice, if such can be found. For this one naturally first turns to the Parthenon, not only as the one nearest in age, but because most of its details, and even its plan, were borrowed from Egypt. It, however, is an exterior, this an interior ; but, besides, it belongs to a stage of civilisation so entirely different, and so much more intellectual, than that which produced the hall, that no just comparison can be instituted between them. This, however, is not the case with our Gothic cathedrals ; they were erected by a people who had at that time reached very nearly the same grade of civilisation, or the same degree of intellectual or political culture, as was possessed by the Egyptians at the highest point they ever reached. With both religion was a mere sensuous idolatry, and all their modes of worship or expressions concerning the Deity were sensual and material ; in both times the people were equally priest-ridden, and equally willing to yield a blind and uninquiring belief to whatever the priests chose to impart to them of a mystery of which they pretended to be the sole depository on earth, and which they used for their own material benefit and deification ; and in such similar circumstances we may, of course, expect similar utterances.

If we take, for instance, one of the best known of the cathedrals of that age—Cologne ; its dimensions internally are 437 feet by 145 feet, while those of the hall are 340 feet by 170 feet : the one covering 58,300 feet, the other 57,800 feet. To the former, however, we must add the transepts, which cover nearly 10,000 feet more ; so that the whole internal dimensions of the cathedral are larger than those of the hall : if, however, we add to the latter the propyla and side walls, we find that it covers 88,800 feet, while Cologne occupies only 74,500 feet, so that on the whole the ground plans may be considered as tolerably equal.

In point of constructive skill, Cologne has infinitely the advantage over the other : at Karnac, for instance, in the central compartment the proportion of the open space compared with the points of support is as 1 to $5\frac{1}{2}$, and in the sides only as 1 to 4 nearly ; while at Cologne the proportions are as 1 to 60 and 1 to 40 (excluding the side walls in both cases). In speaking of a warehouse or cotton-factory, or any such building,

this would at once make the superiority of the cathedral over the hall as 10 to 1. And even here, were the sole motive to accommodate the greatest number of worshippers, and enable them to see any ceremony that was going on, the same might be true, but this was not what in either case was aimed at; the building itself was an idol and a ceremony, and its beauty was more an object than its use. Suppose, for instance, the builders of Cologne had possessed such skill that they could have carried up the walls of the aisles to the height of the nave, and thrown one vault, instead of five, across from side to side, and from one end to the other, without any support on the floor, would they have produced a more perfect interior for a church? I think not. We might have wondered at their boldness and skill, but we never should have had that variety of perspective, and that pleasing elegance of proportion, which form the principal charm of such an edifice. On the contrary, I think the Gothic masons often attempted too much; their supports are too thin, and too few, and you see too often the mechanical contrivances and awkward lines they were obliged to adopt to correct or conceal the effort: had they used more frequent and more massive supports, they might have employed any curves and any form they chose for their roofs and superstructure, and produced far more beauty and repose. The earlier Gothic architects did this; hence, generally speaking, the superior effect of their works. I am not prepared to say that the hall at Karnac does not run into the opposite extreme, and fail from excess of strength; but it is plain that power was the expression they aimed at, and durability their motive. They could easily, had they chosen it, have made their pillars of less diameters, and even with the same architraves have got a wider intercolumniation, had they placed them on the wide-spreading capitals; but on the contrary,—in the centre compartment,—the abacus is a square within the diameter of the column, and in the side aisles it does not project one inch beyond the least dimensions of the pillar. By these means, it is true, the whole weight is thrown on the centre, and stability gained; but they were too good builders not to have effected this with greater space had such been their wish. It was a work of fine art, not of use, they aimed at producing, and as such only we must judge it.

I have before alluded to the law in mechanics that, by multiplying power by time, or the contrary, it is possible, by the sacrifice of whichever element is of least value, to obtain a corresponding quantity of the other. A similar law exists in architecture, where it is always possible to obtain

immense apparent size when we can afford to sacrifice real space ; and on the contrary, when space must be obtained it must always be at the expense of apparent size. Thus, if every alternate column were removed from the design of the hall at Karnac, it is true the accommodation it would afford to multitudes would be greatly increased, but its apparent size diminished at least one third or one half ; and its roof would then be awkwardly low, and its whole proportion disagreeable and bad. On the other hand, were the number of pillars in Cologne cathedral doubled, all its dimensions, both of height, width, and length, would be very much increased ; but at the same time its proportions would be bad, the height at least painfully so ; and it would be utterly unfit for a Christian Church, or the display of any of the ceremonies of which it forms a part. One of the most striking examples of this rule is St. Peter's at Rome, where, with unparalleled linear dimensions, the architects, from their ignorance of the true principles of design, have thrown away the means at their command, and produced only a comparatively small-looking building. Cologne errs also on this side ; but in no building that I know of has the same effect been produced by the same linear dimensions as in the hall at Karnac : a little more space in the floor, or a few feet more in the height of the roof, would not only have thrown it out of proportion, but have diminished its apparent size to a very perceptible extent. Few, probably, have ever attempted to analyse this, and after all it is only a technic beauty at best : but I am convinced, that the great part of the effect produced on the minds of all travellers by the hall, is owing to the perfection with which its designers knew how to increase to so extraordinary a degree the limited linear dimensions of the building ; and when this is found combined with such beauty of detail, and added to the various adventitious circumstances which give it such an overpowering interest, it is no wonder that the language of hyperbole has been exhausted without finding terms to express its immeasurable superiority over the productions of modern Europe.

So far as this technic expression of size and power are concerned, I look on the hall as nearly perfect, and were this the highest or even a high class of beauty we need not go further : when, however, the canons of art are better understood, we shall know that perfection does not reside in the mechanical expression of power contained in a pyramid, nor in the arch of a bridge even of 2 or 300 feet span, or even in such an edifice as this ; nor is it found in such a building as the choragic monument of

Lysicrates, or the arch of Titus, where construction is nothing, decoration every thing, though it is more likely to be found in the latter than the former. There are, however, infinite grades between the two, and perfection will be found in that building in which all classes of beauty are found in the best balanced and most harmonious proportions, and in the one which best expresses the highest intellectual aim with the greatest clearness and elegance. There must be size sufficient to redeem it from littleness, and sufficient mechanical skill displayed to enable it to effect the purpose for which it was erected, for no great effort of intellect can be without some useful aim ; but this perfection resides neither in its size nor its mechanical power, but in something beyond and external to either of these, which is found only in the poetry of man's intellectual nature.

Attempting to criticise by these rules, were I asked whether the hall of Karnac or the Parthenon were the most perfect building, I could not hesitate one second, nor do I think that any one who understands what art is could hesitate in pronouncing for the latter ; but often as I have thought of it, I have never been able to make up my mind as to whether I should prefer the hall to the cathedral of Cologne, or the contrary.

In a parallel of this sort between two buildings, we must of course make allowance for the locality and character, as well as the purpose for which they were erected. The hypostyle hall would be an absurdity on the banks of the Rhine and among the tall houses of a German city, but the cathedral would be worse in a climate where no rain falls and the sun always shines, and would stand out like a lanky giant among the low and flat-roofed houses of the Egyptians. So the one would be totally unfit for the ceremonies of Christian worship, and the other as ill-suited to display the peculiar ceremonies of kingly pomp which the hall was built to accommodate ; and all this without these circumstances enabling us to say that the one is more or less perfect than the other. The bold, broad-fronted, massive proportions of the bull, are as beautiful as the antlered elegance of the stag, but no part of the one could be changed for any part of the other without incongruity, and without making either animal less perfect for the purposes for which it was created. Each has beauties of its own, which the other does not possess ; they have different purposes which both equally perfectly perform. Like the bull, Karnac is strong and powerful, while at Cologne all is light and graceful as the form of a stag. Any one may choose which he prefers, but the

other is not the less perfect: they are unlike, but not rivals, and the preference of the one does not diminish the perfection of the other. Our aristocratic notions would lead many to declare for the more elegant animal, but such is not the general opinion of mankind. Nations have worshipped bulls for the last five thousand years, and do so now, but who ever adored any thing so fragile and useless as a stag?

If, perhaps, we could divest the cathedral of the taint of modern vulgarity that sticks to every pillar of it, wrap it in the mystery of antiquity, and place it in the solitude of a long-deserted city, we might incline towards it; but, unfortunately, it is not so built as ever to be so judged. Take from it the careful hand of man, and in a century or two it drops into undistinguishable ruin. Two thousand years have nearly passed since Karnac was deserted, and if active powers of destruction are not used, two thousand more will find it nearly as we see it now.

Immortality is certainly one of the highest aspirations of the human mind, and no people ever understood so well how to express it as these Egyptians; it is built into every stone of their buildings, and half their effect depends on it. They may have neglected other elements of art, which were subsequently added, and which we might use, but, except in Grecian art, I know of no building which can rank higher than the palace of Karnac as a successful effort of artistic utterance, distinctly and powerfully expressing the feelings and ambitions of its builders; and though these were not of the highest class they were human, and as such must appeal powerfully to their fellow-men through all ages.

It requires, it is true, some little familiarity with the style to perceive this, and that we should divest ourselves from preconceived notions of art; but this once done, we may examine Karnac with the most severe scrutiny, and we shall find in every part and in every detail the evidence of a well-understood design, a perfect conception of the effect to be produced, and a most unmistakeable power in producing that effect; and so perfectly has this been done, that not only the people for whom it was built could understand and admire it, but all future generations, of whatever caste or country, have been awe-struck in gazing even on its ruins; and though the people have passed away with the religion which gave it form and meaning, it continues, and must continue, like Homer's poems, to delight and interest all mankind. Outward forms may change, but truth and nature remain the same for ever; even the

quaint forms of a low and unprogressive state of civilisation interest the intellect of the highest Christian philosopher, and speak to him as clear, if not a clearer, language than the false arts of his own age.

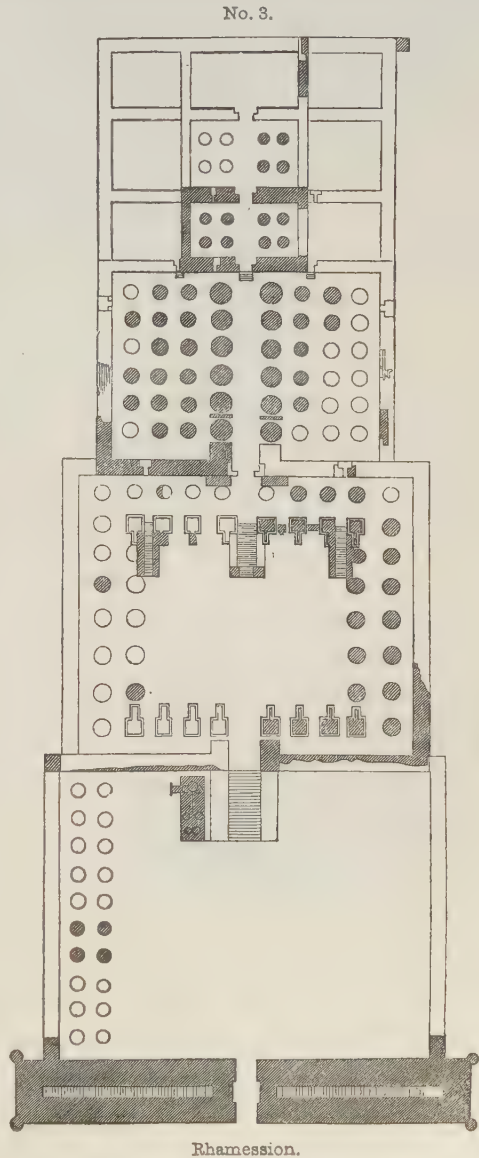
If after these remarks we attempt to apply to the hall at Karnac the numerical mode of expression pointed out in the Introduction, and it be found that at least one half of its merit is technic—say 6—æsthetically its merit is small, for the forms of the pillars and details are seldom beautiful in themselves, and the colouring, though rich as a whole, is not harmonious in detail; and even that consummate skill which I pointed out above, in the adjustment of the solids and voids, is employed more to assist the technic merits of size and power than to produce an abstractedly harmonious form. To this intermediate class of beauty I would not, therefore, assign a higher number than 2, and the remaining 4 would then express the phonetic value due to the sculptures, and paintings, and hieroglyphics, with which every part of it is covered, making its whole value 22; meaning, of course, as it was erected, and at that time. To us, its phonetic value is infinitely more. There is the whole history of a nation—a complete picture of their manners—built into its walls, and a crowd of associations and emotions connected with it as it now stands in solitude, and telling us of long past times and extinct civilisations, which now make its phonetic value 6 or 8 at least, leaving then only 3 for its technic, and scarcely 2 for its æsthetic value: so that, though to its builders its value was not more than I have stated above, to us, even ruined as it is, it cannot be estimated below 30.

These remarks, of course, only apply to the hypostyle hall, considering it as the typical and most perfect specimen of Egyptian architecture. Such a building as the palace of Thothmes III. should, perhaps, be classified as 8 T, 2 Æ, 2 P = 18; while the Rhamession on the other side of the Nile has so much more æsthetic beauty, not only in its general design, but also in the execution of its details, and though equal in technic magnificence, it has less phonetic value as compared with the hall: so that its figures should probably be 6 T, 3 Æ, 3 P = 21. If, however, we consider it as a whole and complete design, while the hall is only a part of one, perhaps these figures should be 5 T, 4 Æ, 3 P, or equal on the whole to the hall as a work of art, though its merits are of a somewhat different class.

SMALLER BUILDINGS OF THEBES.

Though Karnac is now the largest of Egyptian temples, and its hall has no rival which will bear a moment's comparison with it, the temple at Luxor during the eighteenth dynasty covered almost as much ground as it did, and, excepting the hall, was a more complete and perfect building as a whole than even Karnac; it is now, however, so much ruined that it is difficult to make out its plan, and so built up with huts and houses that it is still more so to judge of its effect.

On the other side of the river the Memnonium was, perhaps, more splendid than even Luxor, but it is so entirely ruined that it is quite impossible to estimate what it really was; but there still remain there two other buildings, very similar in size and design, which are still sufficiently entire to enable us to judge correctly, not only of their plan but of their effect. Of Medinet Habou I have already spoken, and cannot but consider it as an inferior building to the Rhamesion, of which a plan is annexed, made out as nearly as can be restored,* and which gives a very tolerable idea of what a complete palace-temple was in the time of the great Pharaohs: it was altogether 585 feet in length, or about 85 feet longer than St. Paul's Cathedral, and covered as nearly as possible 100,000 feet of



* Principally from Sir Gardner Wilkinson's plan.

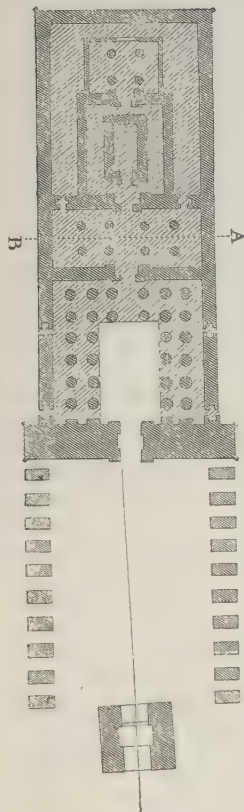
ground, while the former only occupies 84,000. This, however, is not a fair way of judging between them, as St. Paul's is entirely roofed in, while the greater part of a Theban temple is occupied by two open courts; and of course in height, or cubic contents, the church far surpasses the other. The effect, however, of the great mass of the propyla, and a larger and plainer court leading to a smaller and richer one, and that succeeded by the hypostyle hall, shews considerable artistic skill, and the effect produced must have been very imposing; and I am not certain if an interior peristyle, as adopted by the Egyptians, is not always a better arrangement than the exterior one adopted by the Greeks: it is at least easier managed, for the whole architectural scene is under the command of the architect, and the spectator has nothing to distract his attention, while a Greek temple can seldom ever be more than a point in the panorama, and must be fortunate indeed if there is nothing near to detract from the effect.

There are not sufficient remains on the spot to enable us to restore the apartments behind the hall. They probably, however, were more varied in plan than I have shewn them, and more like those at Luxor; but I have followed Wilkinson's plan as I found it, not having examined the spot myself with sufficient attention to express an opinion.

Besides these there is the palace-temple built by Menephtha at Quornah, having more the appearance of a residence than any of those above spoken of; and grouped around Karnac a number of smaller temples, all which would command attention any where else, and should be noticed were this a history, not an essay. Properly speaking these latter were the temples; for the term is incorrect as applied to the larger buildings in the same sense as we apply it to a Greek or Roman building or our churches, as meaning a place exclusively set apart for worship: unless, indeed, it is true, which I am half inclined to believe, that the worship of a half-deified king and his priesthood was the true form of adoration of that people. Be this as it may, there can, I think, be no doubt that the king and the priests—perhaps, also, the chief ministers of the state—resided within the walls of the great edifices, and Basilica consequently would be a more appropriate title, though even that is not strictly correct. Were I to invent a name I should feel inclined to call them Halls of Victory, for they all seem to have been erected by conquerors, to commemorate and celebrate their conquests, and the walls are little more than vast and durable picture-

frames, on which their glories are portrayed—the books, in short, in which their histories are imprinted.

No. 4.

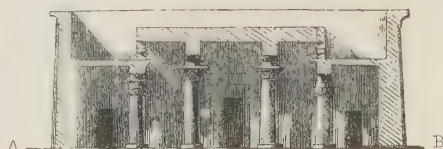


Southern Temple at Karnac.

The annexed plan of one at Karnac, usually known as the Great Southern Temple,* will shew the disposition of what may, perhaps, be more strictly considered a temple in the sense in which we understand the word; the sanctuary being here the principal object, and it being utterly unsuited either for a residence or the display of regal pomp: it resembles, also, much more the temples built under the Greeks and Romans than anything that preceded it. The inner parts, with the hypethral apartment, were erected by Rhamses IV. the first king of the nineteenth dynasty; the court, with its double peristyle and the propyla, were one of the few works of his immediate successors. The gateway in front was added by the Ptolemies, and with the usual symmetriphobia of the Thebans; its axis does not correspond with either that of the temple, or of the avenue of sphinxes between and beyond them.

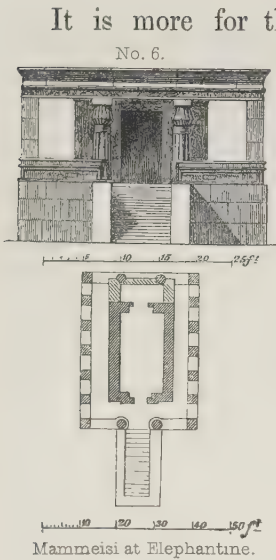
I have added a section of the internal apartment, or pronaos, of this temple, not so much for any magnificence of design or artistic merit which it possesses, as to shew the mode in which the Egyptians lighted the small as well as the large halls of their temples and palaces; for the mode adopted here, though on a very much smaller scale, is exactly the same in principle as the clerestory used in the great hypostyle hall at Karnac, and that of the Rhamesion on the Lybian side of the river; and if I am not very much mistaken, the Greeks borrowed this mode of lighting temples from the Egyptians, as they did so many other things, and adapted it to their sloping roofs and more rainy climate in a manner which shall be explained hereafter, when we come to treat of the hypethron of the Greeks, which hitherto has been so complete a puzzle to those who have attempted to restore their temples, but which a study of their prototypes in Egypt might have explained long ago.

No. 5.



Section across, A B.

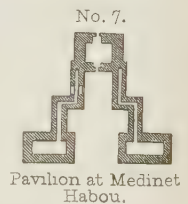
* From the great French work on Egypt.



It is more for the same reason than from any intrinsic merit of its own that I have given a plan and section (both double the usual scale) of the Mammeisi at Elephantine,* which it will be perceived is a peristylar temple, in all essential respects similar to those used afterwards by the Greeks. They, of course, lay claim to the invention, but this one was built by Amenophis III., nearly a thousand years before the erection of the oldest of its class, of which a trace now remains in that country.

Champollion was the first to ascertain that these small peristylar temples—one of which usually accompanies the larger ones, not, it is true, at Thebes, but in all those of the Roman period—were dedicated to the mysterious accouchement of the mothers of the gods; not Typhonia, as was usually supposed.† This one is, I believe, the oldest now existing on the banks of the Nile, though not nearly so splendid as those of the modern era.

Though we have so many splendid remains of temples and tombs, scarcely any thing is left of what might be called the domestic edifices of the Egyptians. It is true we may to a considerable extent restore them from the representations of them in their paintings, and the models found in the tombs, but I believe the only example of an edifice of this class now remaining in that country is the pavilion of Rhamses IV. at Medinet Habou (unless we choose to include the palace at Quornah in this class). The annexed plan (drawn to the usual scale) will shew how insignificant its dimensions are; yet I believe it would be correct to call it the palace of that great king, using the word in the sense that we do as his private residence, for in that climate men scarcely require any other covering than the vault of heaven, and though at the present day the Moslems build large houses, they are required for the seclusion of their hareems. In ancient Egypt the practice of shutting up the females of the family was unknown; they took part in all the occupations and amusements of the men, and lived apparently with them in public; and as the temple in the rear of this little dwelling contained the king's state apartments



* From the great French work on Egypt.

† Wilkinson's "Egypt and Thebes," vol. ii. p. 124.

and halls of ceremony, I can easily understand that he was content with a dwelling that would be considered small by a London shopkeeper.

Be this as it may, the pavilion is a useful architectural study, as shewing that though no people in the world understood better, or affected more the monumental style in their temples than these Theban Pharaohs, and though they used unbroken lines and enor-

No. 9.



View of Pavilion at Medinet Habou.

mous masses to an extent never practised before nor since, where they wanted these effects, they were still sufficiently good artists not to use these artifices where their employment would have been absurd: for it would be impossible for even a Chinese architect to cut up a building more with stories, and windows, and breaks in the walls and cornices, than was done by the same persons who designed one of the most massive of Egypt's temples, when building this dwelling; shewing how completely they were imbued with a knowledge of the great rule, that truth in form and expression is the Alpha and Omega of all true artistic utterances, and that to design a dwelling on the same principles as a temple, or to employ temple forms in dwellings, would be a monstrosity, which, had they dreamt of, they never would have left us the hall at Karnac.

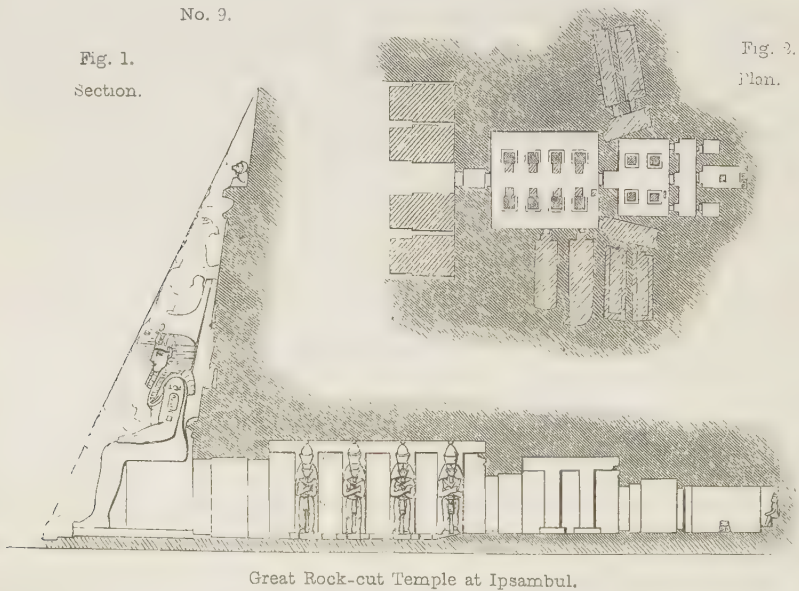
ROCK-CUT TEMPLES.

The Speos, or Rock-cut Temple, forms another class of monuments singularly characteristic of the spirit of the great eighteenth dynasty; not, indeed, as before remarked in Egypt proper, where only one or two insignificant examples exist, such as the Speos Artemidos, near Beni Hassan, commenced by the third Thothmes, and continued under Menephtha; or at Silsilis, in the immediate proximity of the Great Cataract, where there is another and somewhat finer specimen, begun by King Horus, as a temple dedicated to Amon Ra, though its dedication was altered by his successors who continued the work. Were there no other examples than these, it would hardly be worth while to mention them in a country where excavations in the rock—though for other purposes—are so extremely numerous and of so much superior interest as well as magnificence, but

the moment we ascend above the Cataract, and enter Nubia, the Speos becomes the principal architectural form. There is one near Kalabsche, not, it is true, of any great size, and more remarkable for its sculpture than for its architecture, begun and finished by Rhamses II. At the other extremity of the valley there are small ones, at Derri and Balagne; and at Essaboua, Girschéh, and Dandour, the cells or sanctuaries are cut in the rock, while the porticoes and court-yards in front of them are structural — an arrangement which is never found in Egypt proper, though it is found as far south as Gibel Barkal in Meroe.

All these, however, sink into the shade when compared with the two great rock-cut temples at Ipsambul (or Abou-sambul, as it is sometimes spelt), which were excavated by the third Rhamses, commonly called the Great. They certainly are the most striking monuments between the first and second Cataracts, and, as examples of excavated temples, unrivalled by anything out of India.

The annexed plan and section * (to the usual scale) of the principal one, will give a better idea than words can do of its arrangement



and dimensions. In many respects it differs from the disposition of the usual Egyptian temple, but that may be owing more to the changes requisite for executing it in the rock than to any essential difference in their purpose. The interior, however, is insignificant compared with the façade, with its four colossi, seventy feet in height, which sit in calm repose

* From Gau's "Nubia."

guarding the entrance. In the smaller temple, which is close to this one, there are six standing figures of deities, counter-sunk in the rock in such a manner as to have a far less imposing appearance than these colossi of the king, though even these are somewhat rude in sculpture, and mere repetitions the one of the other.

The rock out of which these two façades are cut is so admirably adapted to the purpose, not only from its texture but from its locality, rising almost immediately and perpendicularly from the stream, that I was at one time willing to believe that this was the temptation that induced the king to cut them out of the rock instead of building them, as there can be no doubt but that the expense of this mode was much less than the other; and it had, besides, the recommendation — so all-powerful to an Egyptian — of superior durability; and were these the only examples, this explanation might suffice, but the other temples above quoted, besides many others, shew too clearly that it was another form, and that we must go deeper for an explanation of the reason why the same kings adopted one form above the Cataracts and another below. As I hinted above, I believe that there existed here another race of people then, as now, and that when their affinities are more inquired into we shall be able to say who they were; at present history affords us no assistance except through the faint glimmering of the Greek fable of the Troglodytes, which seems to point to some cave-loving peculiarity in this people: but at the same time no caves have been discovered that could be supposed to have been used for places of worship anterior to the eighteenth dynasty, which one would have expected had it been a native form of worship, which was only carried to a greater extent by the superior splendour of her Theban conquerors.

TOMBS.

The Tombs of the kings and of private individuals, which are excavated in the mountains that border the valley of the Nile, and more particularly those that fringe the plain of Thebes on the Lybian side, are objects of scarcely less interest than the buildings which stand on the plain; but though they are composed of chambers, and possess pillars and other architectural ornaments, they all depend more on painting than on architecture for their adornment, and therefore scarcely belong to this section of the subject.

Strange to say, no tomb of a king has been found prior to the eight-

eenth dynasty — nor, indeed, of any of the earlier kings of that race ; but of the later kings of the eighteenth, and of those of the nineteenth dynasty, almost all the tombs have been found in the valley of Biban ul Moolk, which seems to have been appropriated exclusively for their place of sepulture.

The size and splendour of a king's tomb seem to have depended almost entirely on the length of the reign of him for whom it was intended, for it seems to have been the first care of the monarch on ascending the throne to commence preparing his final resting-place ; and the work proceeded slowly, year by year, without any apparently fixed plan, and each part being finished in succession, as if a certain number of workmen were employed uninterruptedly on it from the day of the king's coronation till he was struck by the hand of death ; when, as if that doom had reached the workmen also, their labours stopped, and we still find the unfinished mark of the chisel on the wall of the last apartment, and the painter's first cartoon is left as he was designing it when his master died.

Though they are more magnificent than those of private persons, the tombs of the kings are scarcely more interesting than they are ; but even in private tombs the glory of the king seems — as in every thing Egyptian — to have been the one great object of the nation. His name is almost always mentioned. The nations he conquered, and the tribute he received from them, are always the favourite subject with the painters. But besides these, the private tombs contain an endless series of paintings, illustrative of the domestic life, the habits and amusements, of the people, and thus are the more precious to us, as they are the only remains we have of *people* of Egypt : all the buildings that remain are the temples of her kings.

Chronologically, too, the tombs are the most complete of the monuments of Egypt, for in the neighbourhood of the Pyramids they are found contemporary with the dynasty of the builders of these monuments. Those at Beni Hassan, as before-mentioned, belong to the dynasty of Osirtasen ; and the Theban series extends from the time of the earliest kings of the eighteenth dynasty till Thebes ceased to be a capital ; and from that period down to the time of the Romans the series is scarcely interrupted, certainly not for any such length of time as could make the gap perceptible in so monotonous a history as that of Egypt.

It does not appear that the specos, or the chamber of the tombs of private individuals, was ever intended to be closed or concealed ; on the contrary, many are ornamented by an architectural façade, designed to lead the stranger to the spot. The mummy was deposited in a pit in the floor

of the chamber, which, probably, was carefully closed; but I should not think it was intended to be concealed. It is generally supposed, however, that this was not the case with the tombs of the kings, though it appears most strange that they should have spent so much pain and labour in ornamenting what never was to be seen after it was finished, or that it could have been a point of honour and of glory with them to have a more magnificent tomb than their predecessors, if posterity was not to know it.

They certainly were not meant to be conspicuous, as their entrances were in all cases mean and unobtrusive compared with the splendour of the interior; and in some (Belzoni's, for instance) we know that a wall was built across it, half way down, to look as if it were the end of the tomb, and as if there were nothing beyond: but it must be recollected this wall was built, or at least certainly re-built, by those who had before entered and rifled the tomb, and there is no proof that it was a part of the original design. Still it must be borne in mind that it is impossible to restore the live rock, or even to imitate it so as to deceive any one. So that the only means of hiding these tombs was to heap rubbish over their mouths—an expedient too clumsy for a nation so clear-sighted in obtaining their objects. That the Pyramids were meant to be closed the moment the body of the king was deposited there, no one can doubt, and that the entrance was meant to have remained for ever concealed; but it must also be recollected that there rarely are any hieroglyphics in the Pyramids, or ornament of any sort either on the sarcophagus or the walls, and nothing but what was requisite for the solidity and stability of the buildings. This is so self-evident, that it appears to me that antiquarians have been led to apply to the kings of the eighteenth dynasty the facts gleaned from the tombs of the fourth, but without proving that the same ordinance of burial existed at both periods: besides this, when speaking of the Pyramids, I pointed out the well-known fact of their all facing the north, and all their entrances being on that side. Here, as before mentioned, no trace of that feeling exists, either in the tombs or structural buildings of the plain, the axis of which is placed at every conceivable angle to the meridian, and often without any more apparent reason than that symmetriphobia which is found in all their edifices.

My own belief is, that the sepulchral ordinance of the Memphite pyramid builders was very different from that of the Theban tomb excavators, and that no argument drawn from the one can safely be applied to the other. It certainly was at all times an object of ambition in Egypt to keep

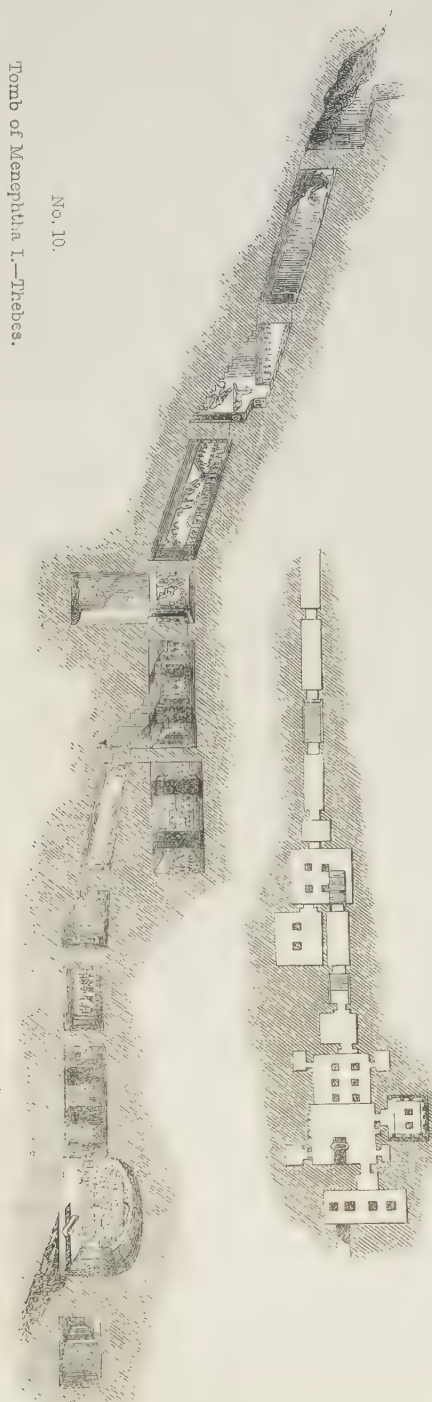
the body whole and intact after death; but it does not appear to have been so much a matter of faith at Thebes as at Memphis. In the neighbourhood of

the latter city we find the same jealous precautions taken till the time of the Persian conquest, as shewn in Campbell's tomb, but no such misapplied ingenuity is found in the necropolis of Thebes. Indeed I think every thing would lead us to believe that the tomb of a Theban king was visited by his relatives and the priests long after he was dead, and that rites were there performed for the rest of his soul till mankind ceased to care for him.

If this were not the case we must not look for his body in the sarcophagus placed in the hall, but his mummy will be found in some pit or passage which has hitherto escaped observation.

I fear it is not likely that we can now discover some unopened pyramid which could throw much light on the question; but we may entertain strong hopes that out of the forty-seven* tombs of the kings, of which the priests kept a list at Thebes, and seventeen of which were perfectly known in the time of the Greeks, one may still be found unripped, which would do more to set this question at rest than any reasoning.

The annexed plan and section (to the usual scale) of the tomb of the builder of the great hall at



* Diodorus, lib. i. c. 4.

Karnac, taken from the drawings of Belzoni, who discovered it, will serve to explain the general disposition and appearance of these singular monuments. It seems to have been carried on with tolerable regularity as far as the unfinished hall with two pillars, at about half its whole length; when, for some reason or other — perhaps because, as in the case of the tomb of Rhamses IV., it came in contact with some other — that apartment was left unfinished, and the work recommenced on a lower level, and slightly out of the axis of the first part. The hall with the coved roof, where the empty sarcophagus was found, certainly appears to have been intended as the last and principal one; but beyond this is what engineers would call a drift-way, which probably was intended as the first step necessary for continuing the tomb on a still lower level, as it is scarcely probable that it was meant to form another opening towards the plain of Thebes, on the other side of the mountain, at a distance of 1800 feet. The valley where it is situated is, *par excellence*, the Valley of the Tombs of the Kings, and as they point some north, some south, or east or west, if this one attempted to penetrate through, it is certainly the one exception, and I cannot understand the motive: it might have been begun from the plain, if that was an object; and I cannot understand its being anything else than merely the commencement of a proposed extension.

The tombs of Amenophis III. (Memnon), and of Rhamses IV. (Sesostris), are (especially the latter) as splendid, if not more so, than this one; but do not differ from it sufficiently in any respect to require particular notice here.

No. 11.



High Water of Inundation.
Alluvium deposited since Statue was erected.
Soil of Desert on which originally erected.

Statue of Memnon, to the usual scale for elevations.*

SECTION IV.

SCULPTURE AND PAINTING OF THE THEBAN PERIOD.

FEW persons, either in ancient or modern times, have visited the ruins of Thebes without being struck by the mass and magnificence of its temples and buildings, and have tried in vain to record the impressions of sublimity they have awakened in the minds of all who are capable of understanding them. Its sculpture, however, has not met with the same just appreciation, and travellers generally try to find excuses for it in the immutability of Egyptian customs or the ignorance of the remote period. In this, however, I think they are mistaken, and if fairly examined, it will be found that their sculpture deserves our admiration as much as their architecture. But our judgment must not be formed by comparing it with that of the Greeks, or of any other nation, but with reference to the object sought to be attained, and the power displayed in attaining that object.

In the first place, it must be borne in mind, that sculpture in Egypt always was subordinate to architecture, as it was in the middle ages, and must always be the case with a people in a similar state of civilisation. In Greece, on the contrary, it was an independent art, and was employed for its own æsthetic ends, which never was the case here.

In Egypt, statues always were — or at least always were meant to be — in pairs, and never to be seen except in conjunction with the architectural objects by which they were surrounded. In their palaces or temples the dromos of sphinxes, the obelisks, the colossi, the propyla, and its paintings, were all as essentially parts of one design as the base, shaft,

* From Sir Gardner Wilkinson's "Manners and Customs," &c. Second series, p. 18.

capital, and entablature of a Grecian pillar. To introduce between the obelisks and propyla an attitudinising statue, like those of the Greeks, would have been a false concord, a dissonance as shocking as that practised by the *cinq-ue-cento* artists, who employed statues with Ionic or Corinthian capitals on their heads to do duty as shafts to their pillars.

In Egypt the architectural forms of the colossi group admirably with the surrounding objects, and produce a wholeness of design, which, though it may be at the expense of the sculptor's art, adds infinitely to the architectural conception.

Besides, it must be borne in mind, that a statue the size of life would have become a pigmy and have been utterly lost among the immensity of their great buildings; colossi were essentially requisite, and in their formation of them I cannot but think that the Egyptians shewed better taste than those who have succeeded them. A Grecian colossus is a magnified man, and unless placed on some eminence, or at such a distance that it is reduced to something like natural proportions to the eye, is, to say the least of it, in very questionable taste, and more like the giants and giant-killers introduced into story-books to excite the wonder of children, than the more legitimate means of obtaining a desired effect of sublimity.

The architectural form of Egyptian statues entirely takes away this defect; they are rigid and formal, but they are also massive and solid; no part in action, no part standing free, and the throne on which they sit, and the pillar at the back, add still further to the solidity of the mass,—they seem built up (if I may use the expression) to last for ever; and after four thousand years we are more surprised to find them defaced and ruined than we should be if they were presented to us whole and intact.

Yet with all this conventional form and stiffness, the great object for which they were executed is never lost sight of, or sacrificed, for they are all portraits, and, so far as we can judge, striking likenesses; and they possess an air of calm and dignified repose which gives a sublimity to a portrait-statue that neither the Greeks nor the Romans so perfectly attained. This may appear a bold and unwarranted assertion to those who are unfamiliar with the form of Egyptian art, and have not got over the repulsiveness of its strange and unfamiliar form; but to my mind, the monolithic granite colossus of Rhamses the Great, sixty feet in height in the peristyle of the RhameSSION, seated in calm majesty among architectural objects of a corresponding size and design, and of which he forms a part, is a more sublime conception than has since been executed in any

part of the world, as the memorial of a man who was great in life, and who wished to convey to posterity a just appreciation of his power. It is not the mere colossus, a man beautiful in form and limb — but a king, or, according to the Egyptian conception, a demigod. Look at it as we will, no portrait-statue has ever been conceived so sublime and godlike, — nothing ever executed so mechanically great.

In attempting, however, to criticise this or any other work of art, there can be no greater mistake than to apply the rules derived from one art, or one branch of it, to another; and if we were to judge the Egyptian art by the rules applicable to Grecian, not only could we never arrive at any satisfactory conclusion, but our reasoning must remain unintelligible. The correct formula for an example of Grecian sculpture would, as I hinted in the Introduction, be, 3 technic, 3 or 4 æsthetic, and 6 or 5 phonetic; and its higher aspiration would always be to increase the latter at the expense of the first. For an Egyptian statue, on the contrary, the formula should be as nearly as possible the same as that I applied above to the Hall of Karnac; and if anything, the increase ought to be in the technic branch, making it, 7, 2, 3, or 7, 1, 4; for though æsthetic beauty is one of the principal aspirations of almost all Grecian sculpture, it should not be so in the higher, and the Egyptian artist never wished for or attempted this: if anything of the kind appears, it arises accidentally from the inherent necessity of imitating more or less correctly the human figure, and that cannot be done without some of its beauty being translated into the stone. But it never was an object; on the contrary, the monolithic mass, the hardness and polish, the solidity and eternity of the statue, were what were aimed at, and they never neglected to make it phonetically a representation of the king, and took care that not only the likeness and the inscriptions, but the locality in which it was placed, and all the adjuncts by which it was surrounded, should combine to tell a distinct tale of greatness, and be as near an approach to a biography as their art would admit of; and how well they succeeded, all can testify who have visited the hundred-gated city. I have a more distinct idea of Rhamses and of Memnon, and of their lives, and works, and aspirations, than I have of any of the emperors of Germany, or even of the kings of my own country; and if an art can convey such an impression, it has not failed, though its forms may be stiff and hard, and it shall have neither the pleasing grace nor anatomical precision of an art which is, it is true, the same in name, but utterly diverse in purpose and in spirit.

So much, indeed, is this the case, that unless people can be brought to believe that neither beauty nor perfection resides in any art or class of arts, inherently or of themselves, but in the mode in which these arts are used, we should invent some new name, or at least apply some distinguishing epithet, to distinguish Egyptian from Grecian and other classes of sculpture with which it has no affinity : one, however, of the principal benefits we derive from the study of Egyptian, or Chinese, or any of the extreme aberrant types of art, is the knowledge of what various purposes any given art may be applied to — sometimes with higher, and sometimes with lower aims ; and, consequently, sometimes the same art may be seen so practised as to be classed among the useful arts, at others aspiring to the highest places ; and I have seen, and can easily understand, sculpture so practised as to deserve no higher description than 10 technic, 2 æsthetic ; at the same time I am convinced that it might be more phonetic than ever the Greeks dreamt of its being, and consequently take a far higher place than it has hitherto done among the sister arts. With the Egyptians it took an intermediate grade between these two extremes, ranking itself beside architecture without attempting anything higher, and perhaps even with lower and more technic aims than even that art ; but still, if judged by its own standard of excellence, eminently successful in attaining its objects and possessing that great attribute and test of all true art — of speaking to all future generations as clearly and as audibly as to those who saw it executed.

These remarks apply only to the colossi of the kings, which were by far the finest and most perfect of the works of the Egyptian sculptors. In the representation of their gods they were met by difficulties which took these objects entirely out of the category of artistic sculpture ; and to us they neither convey any idea of beauty nor of much intelligence ; but in judging them as severely as has been done, we forget the difficulties they had to encounter in expressing their ideas of the Deity. We easily express our notions on the subject by applying to God the epithets of eternal, almighty, omniscient, omnipresent ; or the attributes of Creator, Preserver, Redeemer, or Judge : we call Him wise, merciful, or just ; and to us these terms convey distinct and intelligible ideas : but the Egyptians had no other means of expressing them but by inventing a new deity, or a new form of one, for any attribute as it occurred to them ; and this they did to such an extent, that their pantheon became so multiplied, that no variation of form or expression could possibly distinguish such multifarious

objects, and they were forced to invent symbols by which each deity should be distinguished from all the others. But besides this, they had no means of announcing the various attributes of the god so distinguished, but by again adding symbols to express each of his attributes, till in course of time the symbols almost superseded the original form of the god; and we must look on the representations of their deities not as objects to inspire devotion by their beauty or sublimity, but as theological tenets expressed in symbolical hieroglyphics, understood by the initiated, and looked on with awe and reverence by the less instructed devotee.

A symbolism of a somewhat similar nature, though carried to a far less extent, existed during the middle ages, when all holy persons, from God to the lowest saint, were distinguished by nimbi, glories, and other signs; and, besides, all the evangelists, apostles, saints, &c., were each distinguished by a peculiar symbol, which was often used to represent the person himself. Our forefathers, however, had books and traditions, which prevented the necessity of its being carried to the same extent as to its ever being used to represent ideas as well as persons; and now it is entirely superseded by our books, except as an idle amusement for an antiquarian churchman.

PAINTING.

With us, nothing can be more clear or better understood than the distinction between painting and sculpture; and the idea of confounding these, or either of these, with architecture, would, if proposed, seem merely ludicrous and absurd. Fortunately for themselves, however, and for their arts, the Egyptians understood nothing of these distinctions; they knew only of one art, which oscillated between mechanical construction and imitation of animated forms in various degrees, so that the one sometimes predominated, sometimes the other: but still it was only one art, and had only one aim and one set of rules; and though to make the subject intelligible to modern readers it is necessary to divide the arts into the classes with which they are familiar, it is at least as necessary to redefine the distinction between Egyptian painting and sculpture, to prevent the confusion that must otherwise arise. What I understand by objects of sculpture in Egypt are single statues, standing by themselves or in pairs, but in their attitude and action having no reference to any other statue or action whatever. By painting, on the other hand, I mean all groups

where two or more figures combine together towards one action or the expression of one idea, though in Egypt nine-tenths of these paintings are executed by the chisel, and only heightened and eked out by the brush.

In the private tombs of Beni Hassan and at Thebes, scenes of private and domestic life are usually represented on a flat surface; but in the royal hypogea, and on the temple walls, indeed, all the great and really important pictures are “*intagliate*”—or, to use a more commonplace English word, *countersunk*—a mode of sculpture which possesses considerable advantages for the purposes of the Egyptians: for, in the first place, it never interferes with the straight, bold lines of their architecture, all its surfaces being left practically as flat as before. It also admits of a sharper and better defined outline than is possible by any other mode with the same degree of relief; at least, where every figure was separate and circumscribed by its own outline, as was almost always the case in their pictures (perhaps from this very cause); and, lastly, it had the advantage of being the most durable mode, as the figures and the colours that covered them were more easily protected from injury by being sunk in the wall, than they could have been had they projected from it.

There is nothing among the arts of any other nation with which this Egyptian school of painting can be compared, so as to enable us to judge of it by comparison. The Greeks used sculpture and painting in their temples to almost an equal extent, but its aim was so different; it was grouped into separate pictures, with such different degrees of relief, and altogether of such different forms, that it will not do to judge the one by the rules of the other. The thing most like it is the painted glass of a Gothic building when complete, and at a late period of the art, when the architect had contrived to turn almost all the solid parts of their walls into vast picture-frames—which we call windows—and had filled them with their biblical, as the Egyptians had covered the walls of their temples with their historical, paintings. The one was a *catoptric*, the other a *dioptric* mode of effecting the same thing. The one practised by the Gothic artists certainly surpassed the other in brilliancy, but the Egyptian mode was so far superior in the scope which its vast, unbroken surface allowed the artist, and also in durability, that I cannot but think it a very superior form of art. Three or four centuries have almost entirely obliterated all the works of the glass-painters; between three and four thousand years have passed over those of the Egyptians, and

they remain at this hour nearly as fresh, and quite as distinct, as when Rhamses or Sesostris stood by and superintended the artist at his work.

These circumstances may serve to explain some of the peculiarities of the form of Egyptian paintings, but, besides these, it is necessary to bear in mind that, from its very nature, painting always must be a more conventional art than sculpture; and we should not, therefore, be surprised that this is the case in Egypt, or elsewhere; and if we are to judge of the paintings found on the walls of her temples and tombs by the canons of modern criticism, they will, I fear, meet with less mercy than even the statues. In both cases, however, we must, before condemning, first try and discover what was the object the artist had in view, and what means were at his disposal to carry it into effect.

Our painting is, as I have before said, an independent art, and not, like that of the Egyptian, subordinate to, and almost a part of, architecture. With us it takes much lower ground, and is altogether less important in our system than the art was at the period we are now speaking of. In modern times painting is merely an illustrative art, always dependent on the *litera scripta* for its inspiration and its explanation. In Egypt there was no text to refer to, and the painter was obliged to express in his design all that the books and the canvass now conjointly give utterance to.

Our paintings are now meant to illustrate our religion, our history, or literature or domestic incidents, but without the book or the tradition they would be nearly, if not quite, unintelligible. Take, for instance, our battle-pieces, as more similar to the Egyptian subjects than any others. If the names of all the pictures representing Napoleon's battles at Versailles were changed for one another, no historical confusion would arise from the event, except a trifling incorrectness as to the costumes or standards of the enemy; but when these peculiarities are forgotten, with the costume and features of Napoleon, any one battle-piece will serve for any other fight of the same age and time. They all consist merely of a brilliant staff in the foreground, in which we know from history who is the chief, but without the history any one would do as well; and beyond that certain bodies of men and guns, some advancing, some retreating, but all in confusion and smoke; who are the victors, and which side is losing, is scarce ever told: for the story we are referred to the book; and when we are told that this represents Jena or Wagram, and we know all the features of the fight from the history, we then

recognise some of them in the pictures: but they do not even explain the text, they are merely idle illustrations, depending for their value on the merit of the individual artist who painted them. A knowledge of the circumstances of the fight must be obtained from the page of the annalist and the plan of the engineer, which have entirely superseded the province of the artist as practised by the Egyptians.

The task set, the Egyptian painter was to tell the whole history of the campaign by the unassisted resources of his art. They had no explicative annals to refer to, or, at least, would not trust to the frail papyrus the deeds they wished all future ages to admire.

Our art, with all its resources, is unequal to the task, but how perfectly the Egyptians have succeeded all acknowledge who have visited the ruins of Thebes; and the discovery of hieroglyphics has scarcely added to our knowledge of these wonderful pictures,—they tell their own tale, and in them every thing is clearly and distinctly made out. We have first the muster, then the march, the preparation for battle, and the battle itself. The prowess of the king, who, as in Homer's fights, bears the brunt of the fray, and, borne in his chariot far beyond his companions, deals death around him from his unerring bow. Then the terror and confusion of the enemy—the dying and the dead—the wounded men and horses writhing in agony—the unavailing rally—the despair of the old men and women who line the city walls and watch the fight—all the thousand incidents of the battle are portrayed without confusion; and of the 1500 or 2000 men represented in these great pictures, every one is taking his part in the action, and adding to the effect of the whole. Then follows the punishment of the captives—the distribution of the spoil—the return home—the triumph and the offering to the gods—and subsequent employment of the hero, who has returned from his conquests to enjoy repose and improve his country.

But it is not in battle-scenes only that the Theban artists were so successful, the peaceful amusements and pleasures of the king are portrayed with equal vividness and success; and on the walls of private tombs we have complete illustrations now existing of all the arts and sciences known to that wonderful people: how they wrought in stone and metals—how they wove and embroidered—how they painted and worked in wood—what were their amusements, what their sports—what the animals they reared, and what the grains and plants they cultivated

—what ceremonies attended births and marriages, and, above all, the most momentous ones that closed the scene of life—the ceremonies of the burial, and the awful judgment of the dead. All this is painted by these artists with a distinctness that now, though we have nothing to guide us but the paintings themselves, every thing is distinct and clear, and it only requires a little study, and to free the mind from preconceived opinions, to understand and admire the whole. If, therefore, the Egyptian painters have not reached the artistic combination ours have, nor their correct imitation of real objects, they have, at least, fulfilled one of the great phonetic objects of art,—that of telling their story distinctly, and in a manner that we may envy them, for we have not done so much.

When we consider the difficulties the painters of those days had to contend with, the wonderful effect they produced will appear even more surprising. For they were entirely ignorant of perspective, either linear or aerial; and they knew nothing of light or shade—all their colours were laid on quite flat, and also unmixed; and it was, perhaps, owing to these defects that they always represented the face in profile: thus all artistic grouping, and all subordination of distance, was lost; and to supply these defects it was necessary to introduce these conventionalities of which we complain. Thus the king is always represented larger than those by whom he is attended, and as immensely superior in size to his enemies, whom he treads under his feet; the different parts of the action are introduced in lines, one above the other, and the persons represented vary in size, not according to their distance but their importance: but with all this no confusion arises, and the tale is most distinctly told. If perfect imitation of natural objects is the aim of art, the modern style is certainly infinitely superior to the Egyptian; but if perfection consists in the clearness and distinctness with which the story is told, or an idea expressed, the latter certainly surpasses the former.

Take, for instance, any ignorant peasant, or uneducated person of any class, to an Egyptian picture; he at once comprehends the whole: who the king is—who next in rank—what they are doing—who is conquering, and who conquered: but shew him a modern picture or print, the chances are he turns it upside down, and very seldom can distinguish men from horses, or one object from another. A man must travel among uneducated nations to know how conventional our art is; but we have

been educated in it, and to our minds it reproduces the desired ideas : so did his art to the Egyptian, and with this additional merit as a national voice, that it did not depend, as ours does, wholly on the merit of the individual painter for its success.

If we compare the Egyptian battle-scenes with the Homeric descriptions of battles, the one appears an almost literal transcript of the other. In Homer the kings, and heroes, and chiefs, are more powerful than the other men composing the army, and the battle is fought by them only ; the host itself is scarcely mentioned except on the march, or in the camp ; and it is there alone that we see the army that accompanies the Egyptian monarchs. In both there is the same exaggerated pre-eminence of the action of the chief, the same subordination of the inferior parts, which bring both out in such relief. In both the simple narration of facts, without any attempt at what we would now call grouping—the same truthful record of events, without any appearance of getting up for effect or claptrap, produce the same charm in our own minds now as they did then : we have, however, been educated into the conventionalities of the Greeks, and see nothing to shock or surprise us in the gods assisting in human combats, or in the extraordinary exaggerations of power in their chiefs ; but we have not yet got over the strangeness of the production of the Egyptians.

In this effect of their great pictures, the Egyptians were fortunate in possessing a character so eminently pictorial as their coloured hieroglyphics, with which to fill up the expletive part of their pictures, where they occupy the place that would in ours be filled up by the sky or background. In such a situation an alphabetic inscription would be cold and absurd, but the painted form of animals and things, which make up the writing of the Egyptians, though different from the figures in the paintings, is still of so similar a nature that they group pleasingly with them and give a sparkling effect to the whole design, filling up the whole wall, that the effect, though unlike any thing we know of in modern times, is singularly pleasing.

Words, however, cannot convey a correct idea of these wonderful productions, nor can the diminutive copies in our books ; till we see them on their native walls we are unable to raise our minds from our little bits of framed canvass to these colossal productions, extending each picture to hundreds of feet in length, and from forty to sixty feet in height, and in

Thebes alone covering thousands of square yards, and portraying the whole history of one of the most illustrious dynasties of the earth; and these not merely painted on the surface as we paint it, but engraved on the polished walls of the oldest and most splendid temples which, as far as we know, have existed, or do exist, on the face of the globe.

SECTION V.

EGYPT UNDER THE DOMINION OF FOREIGNERS.

THOUGH in doing so I deviate slightly from the chronological order I have proposed to myself, I shall continue here the few remarks I have to make on the history of Egypt, from the period of the Exode of the Jews, till its final extinction before the rise of Christianity in the third century of our era.

I do not know any circumstance in the whole range of Egyptian history so striking as the complete lethargy and decay into which that great country sank after the brilliant epoch of which we have been speaking. We know of no foreign subjugation, no internal commotion, no revolution of sufficient importance to account for such a state of things as followed after the two first reigns of the nineteenth dynasty, unless it was, indeed, the loss of their slave population, led out into Palestine by Moses; which must have been not only a severe blow in itself, but betrays the extreme weakness of the Egyptian government at the time, so unlike the age of the all-enslaving heroes of the eighteenth dynasty. And besides this we have the Egyptian raid of Semiramis, which, if it took place at all, must have happened about the end of the nineteenth or during the existence of the twentieth dynasty; and notwithstanding the suspicious authority of Ctesias,* on which it rests, the negative testimony of the monuments, and the general features of Egyptian history at this period, lead me to attach much more credence to it than I should otherwise be inclined to do. Be this as it may, certain it is that during the thousand years that elapsed from the middle of the nineteenth dynasty till the conquest of the country by Alexander the Great, the arts of Egypt languished in a state of apparently hopeless decay. We never, however, entirely lose the thread that connects the various links of the chain during this period, as we do sometimes during the thousand years that preceded the eighteenth dynasty; and we can find the names of almost all the kings that reigned during that period, though only, perhaps, on steles or amulets, and occasionally something greater was attempted, more

* Diodorus, ii. 14 *et seq.*

especially by the first kings of each of the various dynasties, which followed each other in rapid succession during this inglorious period.

The twentieth and twenty-first dynasties are among the most inglorious of any, unless, as assumed above, the latter were pyramid-builders, and erected the great one at Saccara; but the twenty-second, or Bubastite, opening with the conquest of Jerusalem, have left their memorials at Thebes, and had their capital not been in the Delta, we should, no doubt, have found more splendid remains of them in the southern capital. The twenty-third and twenty-fourth are again inglorious, but the country was awakened by the conquering Ethiopians, who formed the twenty-fifth, and whose names we find from Meroe to the sea. Again a native dynasty succeeded in the twenty-sixth, and this time with more glory than its predecessors; and under the Psammetici and Anasis, the friend of Polycrates, Egypt seemed to be on the point of resuming her place among the nations, when that hope was blighted by the Persian conquest under Cambyses; and during the two hundred years that followed, she was either the conquered satrapy of a barbarous monarchy, or a revolted province struggling to regain that liberty and independence which her sloth and luxury had lost her, and which her effeminacy and corruption rendered her incapable of enjoying, even had accident placed it within her reach.

The Macedonian conquest opened a brighter era for this unhappy and degraded country: true, it was only a change of masters, but it was a change from the barbarous Persian to the enlightened Greek, and with his eagle eye of genius Alexander seems to have seen what was required to re-elevate this country in the scale of nations, and his projects, had they been carried out, were admirably adapted to give Egypt all that an old and decayed country could enjoy. After his death she was far more fortunate than the other provinces of the immense empire he had conquered; and in Ptolemy Lagus found a governor who not only preserved her in peace at home, but strove how to make her respected abroad. During his reign, and that of his two immediate successors, Egypt enjoyed a consideration she had been a stranger to for more than a thousand years. The laws once more respected, the religion not only tolerated but encouraged, commerce revived, and the arts and sciences patronised with a discrimination and munificence that has few examples: and while they thus reorganised her at home, they restored to her almost the whole of the empire of the Pharaohs—Ethiopia, Lybia, Syria, and

the greater part of Asia Minor, besides Crete and some of the islands. One might almost fancy that greater and brighter days than those of the eighteenth dynasty had dawned upon her. Unfortunately, however, the regeneration came not from herself, but from a foreign race, who, as long as they retained their foreign energy, raised her to this pitch; but when the luxury and corruption of the mass rose to the palace, and the race of the Lagidæ became Egyptians, both in birth and in manners, she again sank, and though retaining her integrity, because there were none sufficiently powerful near her to invade her, she lost her foreign empire; and at last, when Rome had leisure to attend to her affairs, she fell an easy prey without almost striking a blow, and was, by a series of wretched and disgraceful intrigues, absorbed into that colossal empire. Still, being totally without the spirit of independence or of patriotic feeling, she submitted to Rome as easily as she had to the Lagidæ; utterly incapable of governing herself, it mattered not to her who were her masters. Still it is to this very cause that we must ascribe the leniency with which she was treated by her haughty conquerors, and the tolerance of her religion and institutions, that still remained while she continued a Roman province. They neither thought it necessary to introduce their laws and institutions, nor did they admit of colonisation, as in other provinces, but, on the contrary, they seemed inclined to govern Egypt by trying to identify themselves with the people, and by making themselves regarded as her lawful sovereigns; following in this the policy so successfully pursued by the Lagidæ, as during their reign she was left to be governed by her own institutions, and in the free exercise of her own religion and arts. Indeed, during the whole period she seems to have been considered more as a protected state—an appanage of the emperor's—than as a conquered province, the property of the Roman people.

For the whole period of more than five hundred years during which Egypt flourished under the Ptolemies and the Cæsars, she was, probably, more populous than during the days of the great Theban dynasties. She enjoyed a more extensive commerce, and amassed greater wealth; her institutions were equally her own; the laws were, probably, more respected and better administered; and the individual subject was more secure in the enjoyment of his property, more free in the exercise of his religion, and more eligible to the highest offices of state, than during the eighteenth dynasty; and we need not, therefore, feel surprised if we find the prosperous people erecting temples nearly as large and as splendid as those of

their ancestors. But we need not look on them for the same high art, or the same perfection, which still delights and overawes the wanderer among the ruins of Thebes.

There is a vast and awful difference between a young renovated people emerging from a dark period of anarchy, and, full of hope and strength, advancing boldly in the path of civilisation, perfecting their institutions, and conquering the world, knowing that they are themselves working out their own greatness, and finding that they are the greatest nation on the earth;—there is a vast difference between such a people and their posterity, enervated by luxury, debased by debauchery, and degraded by the long loss of their national independence, enjoying institutions they know they cannot and dare not protect, and exercising a religion the world had outgrown, and in which they themselves scarcely believed.

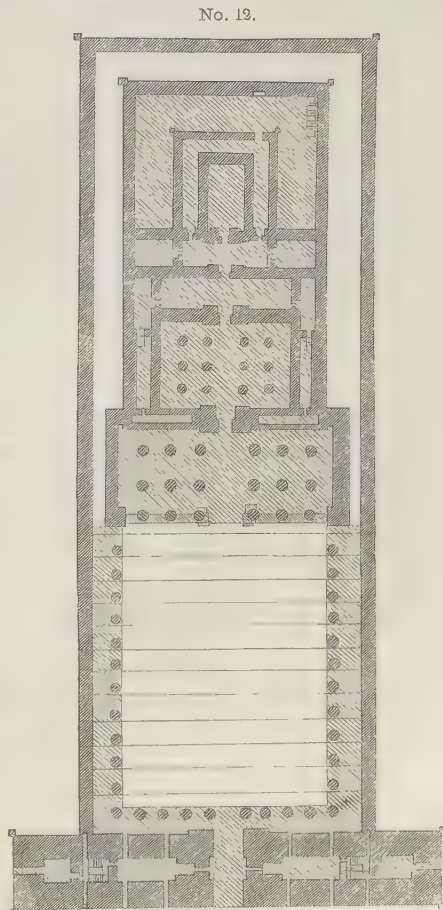
The arts of the two periods, of course, bear in every part the indelible impress of this altered state of things; yet it is not at first sight so apparent to the modern stranger as might be imagined, nor till the mind is thoroughly imbued with the spirit and perfection of the one do we become aware of the faults and littleness of the other, so easy is it to mistake the acquired polish of refinement for the true spirit of the perfect gentleman. It was such a comparison as this that Rousseau aimed at in his famous essay on the injury the arts and sciences had done to mankind; he ought to have compared two such periods of history as the Pharaonic and Ptolemaic, and the world would have acknowledged the justice of his reasoning: but, unfortunately, he missed the great or middle period, and compared the last state of a decrepid nation with a state that could only have existed before Menes.

There are, unfortunately, no drawings to which we can refer to point out these differences between the two great periods of Egyptian art. The great French work is the only one worthy of the subject, and that, unfortunately, was published before these distinctions were understood, and a modern French character pervades the whole, which destroys the Egyptian distinctness of the two epochs; and words will not, of course, convey a correct idea of the difference, which is observable more in detail and style than in general character. The distinction, however, is as great as between the Parthenon at Athens and the smaller Temple of the Sun at Baalbec, two buildings that in size and plan are nearly identical, but in every thing else how different! Yet I question if fifty years ago

two perfect restorations of these temples had been erected side by side in any capital in Europe, if nine people out of ten would not have preferred the Roman to the Grecian example, barring the material. We know, or we believe we know, perhaps, better now, though to judge from our practice this is more than doubtful.

ARCHITECTURE.

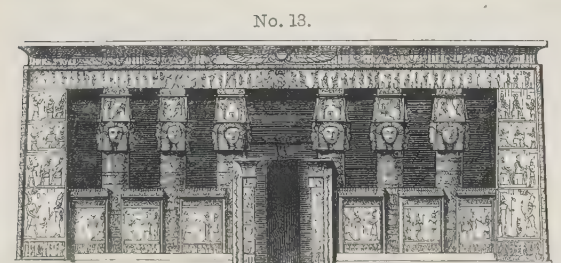
Though none of the temples erected by the Greeks or Romans in Egypt can vie with the great structures of Thebes, either in size or grandeur of conception, they take an intermediate place between the four or five great edifices of that city and the other temples of the great eighteenth dynasty, and, generally speaking, are of quite sufficient size (many of them being larger than the Parthenon) for architectural effect; and they are constructed in the same bold style of massive, monolithic masonry, as their great prototypes: so that altogether, as far as their technic merits are concerned, they might rank with those of a better age. Nor is their architecture, generally speaking, æsthetically much inferior—in some cases it is better—so that their inferiority really belongs to the phonetic, or highest class of beauty, and is apparent in the general want of artistic expression in the architecture, and the immeasurable inferiority of the painting and sculpture which make up so large a part of the older buildings, shewing us, in almost every instance, how much easier it is to imitate the technic, or lower qualities of art, than the higher ones, which cannot be



Temple at Edfou.

reached by imitation, or expressed but from the overflowing fulness of the intellect.

Among the temples of the period still existing in Egypt, by far the most perfect and complete is that of Edfou, of which a plan is given on the preceding page (woodcut No. 12). But as that at Dendera somewhat exceeds in size, I have chosen it as the illustration of the façade of an



Porch at Dendera.

Egyptian portico of this period, of which it is the most splendid example existing (No. 13.)* It consists of the same number of pillars in front (hexastyle in antis) as that of Edfou, but it has one row more

in depth, and is altogether more grandiose in style. The whole structure at Dendera, however, consists only of a pronaos, naos, and sekos, as shewn in the centre of the plan at Edfou; it has neither the splendid peristylar court of the other, nor its gigantic propyla, nor the wings which, extending from these, surround and enclose the whole, all which taken together nearly double the temple in size and grandeur. It is more than probable that such was intended at Dendera, but never executed; for it is one of the peculiarities of the design of these temples—like those of Southern India—that they grow from a centre: the sekos, or sanctuary, is complete in itself, with its gallery; which, however, would then probably become a peristyle, as in the Mammeisi. In front of this is a hall, or naos, which in smaller temples, as at Kalabsche, may remain the porch, or another and greater may precede and supersede it; and this may then, as at Dendera, be considered a complete temple, or, as in the instance at Edfou, a peristyle, and propyla, and wings may be added; and though it never was done in the Roman period, judging from what took place at Karnac, an hypostyle hall might easily be added in front of this propylon, and courts and propyla again *ad infinitum*.

As a specimen of a temple of the same class, but on a smaller scale (tetrastyle in antis), there is, perhaps, no one more pleasing than that at Kalabsche in Nubia, of which a plan is annexed (No. 14), with a

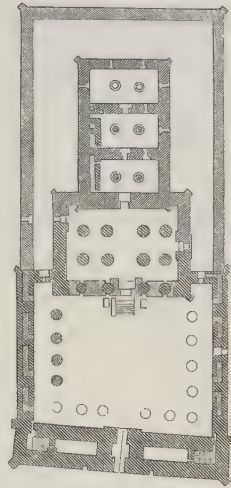
* Both from the great French work on Egypt.

section* through its greatest length, which will explain the relative proportion as to height and dimensions of the different apartments of the temple itself.

At Hermeth (Hermonthis) in Egypt, and Koum Ombos, are two very splendid specimens of porches of the same class as those above mentioned, but both are very much ruined, and without the usual accompaniments; besides that, they possess no peculiarities not found in those above alluded to.

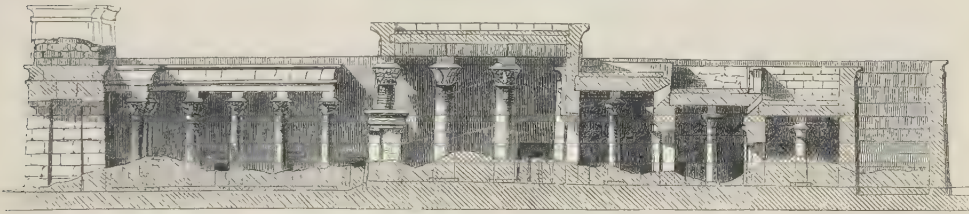
A still smaller class (distyle in antis) is frequently found in Egypt, and more particularly in Nubia, at this age; but as it possesses no new peculiarity, except its smallness, I have not thought it worth while to add a plan of one.

No. 14.



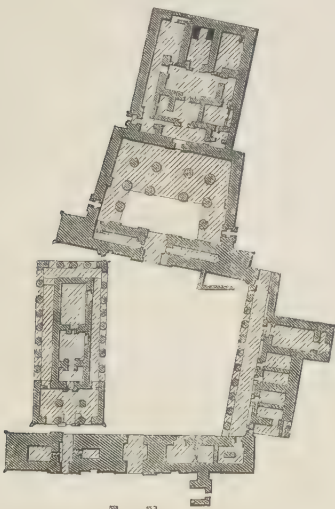
Temple at Kalabsche.

No. 15.



Section of Temp'le at Kalabsche.

No. 16.



Temple at Philæ.

Of all the temples, however, of this age, no one surpasses, either in beauty of design or detail, that which is situated on the island of Philæ, on the confines of Egypt and Nubia. The whole range of its portico and colonnade is too extensive to be included in my woodcuts,† but it will be seen, from that part of the temple illustrated by the annexed plan, with what picturesque irregularity the various parts are grouped together and designed, so as to express separately each its own story, and to fit to the locality for which they were designed. There are many instances of this in Grecian and in Gothic art, but I scarcely

* From Gau's "Nubia."

† From the great French work on Egypt.

know of one where the true principles of design have been carried so far in any building of the Roman era, and unless it was erected on the foundation of an older edifice, it is not easy to understand how it was so designed.

It is impossible without seeing it, or, at all events, without far more extensive illustration than my limits admit of, to convey any idea of the pleasing effect produced by this irregularity of design, but the annexed view of the exterior will explain its general character and the nature of its

No. 17.



View of Temple at Philæ.

situation, and the frontispiece* will convey some idea of its internal architecture, which is as graceful as that of any temple in Egypt; and enough of its colour still remains to enable us to judge of the beautiful effect that was in those days produced by the application of polychromatic decorations to architecture, which they used to, perhaps, a greater extent than the carved forms to which we have in modern times thought fit to restrict ourselves.

On the whole I look on this little temple at Philæ as the most beautiful, æsthetically, of any in Egypt; and though, of course, it will not do to compare it with the great Theban examples, either for technic magnificence or phonetic power, I think it is entitled, as a specimen of Egyptian architecture, to rank at 5 Technic, 4 Æsthetic, and to 2 Phonetic, or 19, perhaps 20, which is a very high value for a temple of such a period.

Besides the several peculiarities which seem to distinguish these Roman temples from their Theban prototypes, they frequently take a form almost purely Grecian in plan, even when not used as Mammeisi,

* Taken from a restoration of the court in the great French work on Egypt: enough remains to justify not only all the details, but all the colours used. But it will be

observed, it is taken from a conventional point of view, as it would be impossible to see it in such perspective (though often done) without removing the propyla.

whose peristylar form I have before alluded to, and which became more important at this period than they were in the times of the purely Egyptian dynasties. There is one, of course, at Philæ (seen in the view to the left); but besides this there exists between the two propyla a large temple, which, barring some slight peculiarities, might almost pass for a Grecian one in plan, though its elevation and details are as purely Egyptian as the propyla themselves.

As I before remarked, all the buildings of this epoch are temples, properly so called—never basilicas or palaces; nor with any other apparent use or purpose except that of ceremonial worship of the gods by the priests, which certainly was not the purpose for which the great Theban temples were designed. In them the gods may be said to have been worshipped more in chapels attached to the great buildings than in them themselves; and it does not appear that under the Theban dynasties either the priesthood, or that monstrous African Fetichism which we know as the religion of the Valley of the Nile, had that complete sway and overwhelming power which they had during the time of the Greeks and Romans, which is the period at which we are most familiar with Egypt and her customs. There are, in short, as before said, three distinct phases of Egyptian society, which must be judged of by three separate sets of rules,—that of the Pyramid, that of the Palace, and lastly that of the Temple-builders, who, at the distance of fifteen hundred years from each other, have left their monuments in this valley of artistic wonder.

SCULPTURE AND PAINTING.

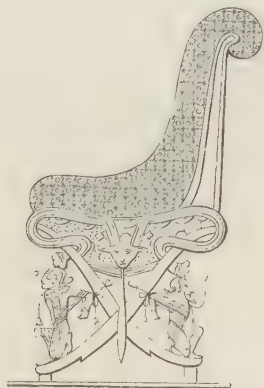
Although from the causes above enumerated the mere architectural forms of art retained much of their perfection during the Ptolemaic period, it was impossible that either sculpture or painting should do so, as they require a higher motive and more phonetic form of expression than the Egyptians were then capable of, unless it should happen, as in the time of the eighteenth dynasty, when all the three arts were in reality considered as only one; but that again could not be the case after the introduction of alphabetic writing, and the familiar use of its different forms of expression.

So completely is this the case, that sculpture and painting can scarcely be said to exist in Egypt during the period of which we are now speaking; certainly not in the sense in which we understand these arts as existing during the older period. There are, it is true, at Rome and elsewhere, some portrait-statues of this age, though I am not aware of the existence of any in the country itself; but they have neither the imitative value of Roman art nor the conventional expression so intelligible in Egyptian, but, like all unreasoning copies of extinct and foreign arts, are as unmeaning and vapid as they are ungraceful and ugly. Men had in this age learned to rest their hopes of eternity on something else than stone; and if a statue was wanted, it was only as illustrative of the written page. A conventional Colossus was merely an expensive absurdity to a Greek or a Roman, which, therefore, they were not likely to execute themselves; and their slaves preferred combining a revenue-bringing temple with the monuments to their master's glorification, which their slavish spirit of adulation led them to erect.

If, however, the sculpture of this period is bad, the painting is even worse. It is true that the walls of all the temples erected by the Greeks and Romans are covered with figures and hieroglyphics to an extent almost unknown in the Pharaonic age, and in careful finish and technical elaboration these modern ones surpass the older specimens. In them, however, the whole wall is divided into a number of rectangular compartments, each containing one or two figures, sitting or standing, and the rest filled up with neatly-executed hieroglyphics or symbols, which tell of the piety of the king and his liberality to the priests or others, or at least their superstitious devotion to a symbolised nature or polytheistic Fetichism, which had infinitely degenerated from the strange boldness and originality of its prototype. But what we principally miss are the great historical compositions, which form so striking an element in Theban art. The Egyptians of the period had, alas! no history they wished handed down to posterity—they had no great deeds to commemorate; and it would have been but left-handed flattery to their foreign masters to have attempted to repeat the great deeds “of the brave days of old,” had they been capable of appreciating them. But more of the decline of this art and of sculpture was owing to the introduction of alphabetic writing among them. They had now learned to look to the page of the scribe to chronicle passing events more than to the chisel of the sculptor. They had learned to believe that the proper depository for it was the shelves of the Alexandrian library, not

the walls of their temples. Their past history was now to be recorded in the cold dry page of Manetho, and no longer to be represented in living characters as in the gigantic pictures of the Thebans, and in consequence that mode of expression for which this art was invented had passed away, and the attempt to revive it was hollow and without meaning; and if the harsh criticisms that are sometimes applied to Egyptian art were confined solely to this branch of it, it would be difficult to plead anything in extenuation of their severity: the king and principal figures here are really giants among pigmies, without any apparent motive for their being made so. The symbolism looks like a mere conventional absurdity that was not wanted, and the mass of minute hieroglyphics, repeating over and over again the same formula, looks more like a laboured effort to fill a great space, and to hide in multiplied confusion the want of an idea or story to be told, than the effort of a primitive people using the only rude mode they could think of, or had then been invented, to express as clearly as they could the mass of thoughts and ideas for which they scarcely knew how to find an utterance.

The same remarks apply to the scenes from domestic life which form so great and so interesting a part of the Theban paintings. A man at this time made a will, and it was engrossed, sealed, signed, and delivered in the presence of witnesses, very much in the same manner as is done by a modern attorney: he no longer required a painted devise of his property, nor one of those pictorial testaments which cover the walls of all the earlier tombs; the *litera scripta* had in this, as in history, superseded the *forma picta*, and we must now try and elaborate from the decayed tatters of ill-preserved papyri what before was presented to us at a glance, and with far more distinctness than words can ever well convey.



State Chair of Sesostris, from his Tomb.

SECTION VI.

ETHIOPIA.

THE inquiry as to whether civilisation ascended or descended the Nile has long been one of the *questions oisives* which have amused the learned ; and, so long as the Greek historians were the only authorities, might have remained for ever unsettled. But I think the hieroglyphical discoveries have now for ever laid it at rest. I do not, of course, mean to assert, that it is impossible that Meroe may have been civilised before Egypt, and that the Egyptians may have been a colony of Ethiopians ; but I believe I am quite safe in asserting, that of that Meroe and of that civilisation no trace now remains, either in history or in monuments. We now know that all the monuments existing up to the Third Cataract were erected by the eighteenth Theban dynasty, as that country then formed a part of their kingdom ; and we know that some of their monarchs extended their conquests far beyond that, and beyond, probably, the site of this kingdom : but though their names have been found on fragments there, no monuments of theirs exist in those countries, which would go far to prove that no means of erecting them were found.* If civilisation, then, came down the Nile, it must have been long before this, or, indeed, long before the period of the Pyramid-builders ; and for this, what authority have we ? Nothing beyond the fables and speculations of the Greek historians. And can we trust such men as Diodorus, who is the great authority on this subject ; or Herodotus, when we can now prove how grossly they were mistaken in the history of Egypt, which they visited, whose monuments they saw, and whose annals were read to them by the priests in the country itself ?

I am not going to enter on this question from the Greek authorities, but will briefly state what evidence can be derived from the monuments on the subject.

Though these ruins have neither been examined with the same care, nor illustrated with the same art as the Egyptian ones, still enough has been done to enable us to form a correct opinion of their appearance and

* Wilkinson states that the name of Amoun m. Gori—who he supposes to be one of the sun-worshipping kings, contemporary with Amenophis III.—is found on the ruins of the temple of Gibel Barkal ; but this appears to want confirmation.

dimensions, and perhaps as much pains have been spent in their elucidation as they deserve.

The first traveller that made the world acquainted with them was Calliaud;* but either his sketches must have been carelessly made or carelessly transferred to the stone, for they are little to be depended upon. Messrs. Waddington and Hanbury† added some interesting particulars; but by far the best authority is Mr. Hoskins,‡ who not only possessed the requisite knowledge of Egyptian archæology and hieroglyphics to enable him to form a correct opinion, but seems, by the use of drawing instruments and the measuring tape, to have done what he could to enable others to judge with him: like most men, however, who undertake long and dangerous journeys in pursuits of favourite objects, he argues with a strong prejudice in favour of his Ethiopian antiquities, to which he would willingly ascribe an immense antiquity, but on grounds that I fear are entirely untenable.

His principal argument rests on the style of the sculpture found in the porches of the Pyramids, which he admits differs much from that of the great Theban monuments, and is decidedly inferior, and from this he assumes, of greater antiquity; for, as he observes, it does not resemble the sculpture of the subsequent periods in Egypt, nor those executed under the Greeks and Romans. The argument, however, cuts both ways, and they certainly resemble less the sculpture of the age of the Pyramids of Memphis than any other in Egypt.§ The hieroglyphics, he allows, are badly arranged; the figures of kings or queens fuller and rounder, and sculptured with more freedom and ease than those of the Pharaohs: but all these peculiarities would prove a decline from that period much more than an earlier one, and indicate an introduction of the Grecian element in a manner scarcely to be mistaken.

Unfortunately the names in the cartouches have not been read, or at least identified with any names we know. The only ones on Ethiopian

* "Voyage à Merœe," &c. 2 vols. fol. Paris, 1823.

† "Journal of a Visit to some Parts of Ethiopia," 1 vol. 4to. London, 1822.

‡ "Travels in Ethiopia," &c. 1 vol. 4to. London, 1835.

§ The sculptures at El Tell Amarna, representing the sun-worshipping dynasty

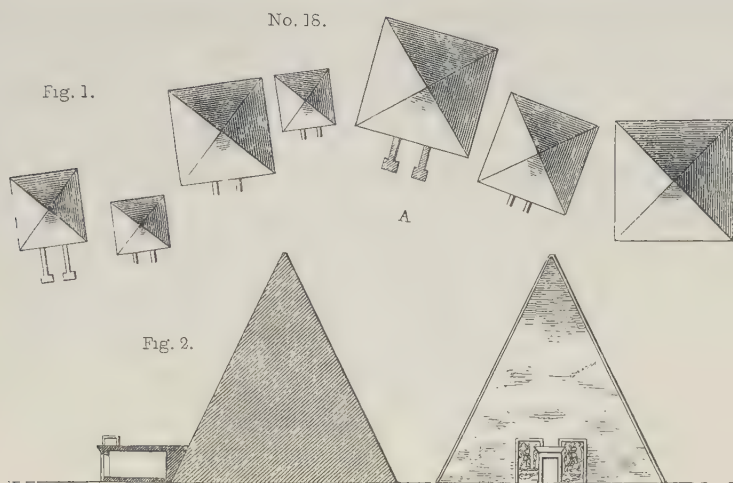
who were contemporary with, or succeeded, Amenophis III., resemble in character these Ethiopian sculptures more than anything else in Egypt, both in fulness of contour and ease of outline. I have often suspected that they may have come from the far south, but there are yet no facts to base a theory upon.

monuments with which we are acquainted * are those of the kings of the twenty-fifth dynasty of Egypt, who ruled there from 724 to 680 B.C., and their names have been found on the temples of Gibel Barkal (the only ones existing in this country), of which, therefore, they fix the date ; but not on any of the pyramids, which may, therefore, be of a different age : but that appears to me extremely improbable, and assumed without any sufficient grounds.

My own opinion is, that after the decline of the great Theban monarchy, Meroe, which was an outpost of that empire, being no longer kept in check by the feeble successors of the great Pharaohs, was enabled to erect itself into an independent kingdom ; and during the six centuries that followed became sufficiently powerful — probably in consequence of the Eastern commerce, which at this period appears to have taken that route—to roll the tide of conquest back on the mother-country, and that its kings then became sovereigns of Egypt, and its twenty-fifth dynasty. This I look upon as the culminating point of Ethiopian greatness ; though that it continued of importance some time longer is evident from the desertion of the soldiers of Psammeticus to Meroe, and the important part it afterwards plays in the commercial annals of the world and the writings of the Greek and Latin authors. The position and periods thus assigned are far more than sufficient to account for all the monuments we now find in that country, which, compared with those of Egypt, may almost be called insignificant ; and, if we leave out the temples of Tirhaka, of little value as works of architecture. The monuments of this country consist principally of three groups or sets of pyramids : one — the most numerous — on the assumed site of the ancient Meroe ; one at Gibel Barkal, further down the Nile ; and the third at Nourri, about eight miles further up the river than the last mentioned. Compared with the Memphite pyramids, these are but insignificant monuments ; the largest is one at Nourri, measuring 110×100 . At Gibel Barkal, the largest is only 88 feet square ; and at Meroe, none exceed 60 feet. Their height is always equal, more or less, to their diameter—a dimension unknown in the Egyptian ones, though it is the element of the Pyramid of Belus, erected by Semiramis at Babylon, in the thirteenth century B.C. They are never placed north and south, but at any convenient angle to the meridian, in which we seem to have lost one of the principal peculiarities of the

* Except the indication, above alluded to, of the presence of the eighteenth dynasty in this country.

Memphite edifices ; but if they were posterior to the Theban buildings, we need not wonder at this, for, as I mentioned above, no regard to this point was paid by the builders of the edifices at that time or afterwards.



Pyramids at Meroe.

Fig. 1. Plan of principal group.

Fig. 2. Elevation and Section of Pyramid, marked A.

Both to usual Scale.

They do not appear to have had any chambers in the interior, but to most of them is attached (most probably there was to all,) a porch, or propylon, with a niche at the upper end, in which it was probable, as Mr. Hoskins supposes, that the embalmed body of the deceased was preserved : for, as Diodorus mentions, they did not bury their dead as other nations, but some kept them in their houses shut up in niches of alabaster, thinking it advantageous for a child to have ever before his eyes the image of his father; and if this is correct, we have a further deviation from the Memphite type in a considerable advance on the peculiarities of the Theban tombs, as I mentioned in speaking of them.

Indeed, one of the principal points of interest attaching itself to these Ethiopian pyramids is their presenting us with a third mode of sepulture in the valley of the Nile, differing in almost every respect from the other two. We first find that practised at Memphis, from the age of Suphis to that of Psammeticus, at least the principal object of which was to conceal the body effectually and for ever ; here, at the other end of the valley, the body was encased in glass or alabaster,* or some transparent sub-

* Herodotus, iii. 24. Diodorus ex Ctesia, ii. 14.

stance or gum, and kept either in the house or placed in the porches of the Pyramids, which were thus only exhibition-halls of dead bodies, being a custom as diametrically opposed to that of the Memphites as it is possible to conceive. Intermediate between the two we have the Theban plan, which certainly did not aim at concealment, as so essential a thing as it was thought to be at Memphis; but at the same time had as little idea of making an exhibition of the dead as was done at Meroe.

That these three different modes of sepulture point to three different races and forms of faith does not appear to me to admit of a doubt; but I have above said as much on the subject as is, perhaps, requisite at this stage of the inquiry, or is justified by the imperfect knowledge we yet have on the subject, and I shall not, therefore, enlarge more on it just now.

Another peculiarity is, that some of these porches are arched, several with segmental arches, and one with a pointed or Gothic arch. From this Mr. Hoskins* would argue that the Ethiopians should be considered as the inventors of the arch; for though we find brick arches at Thebes as early as the days of the eighteenth dynasty, no stone ones have been found in Egypt before the time of the twenty-sixth, or immediately preceding the Persian invasion.

If Mr. Hoskins' view of the case is correct, it must appear strange, as we know the kings of the eighteenth dynasty possessed the country up to the Third Cataract, and certainly passed through or conquered this one, that so ingenious and so architectural a race should not have taken a hint, and learned an art they were ignorant of, and so much wanted. Was it not much more probable that these arches did not exist till long after that period, and when stone arches were common all over the world?

One other peculiarity observed in these Pyramids deserves mention; it occurs in one of those at Nourri, where the upper part of one having fallen away, displays an inner and smaller one, to which this outer coating has been added, probably by the same person who, increasing in wealth or power, has thought the cenotaph he had first erected not sufficiently large to commemorate his importance. The same thing occurs in Buddhist topes in India, but I am not aware that it has been observed in any of the Egyptian ones.

* "Travels in Ethiopia," p. 156 *et seq.*

The other antiquities of Ethiopia are several temples at Gibel Barkal, the principal one of which is an Egyptian temple of the first class, consisting of a peristylar court, hall or pronaos, naos, and sanctuary; but so completely ruined that only one pillar is left standing, and its plan can scarcely be made out. The sanctuary was certainly built by Tirhaka, but Mr. Hoskins thinks he can trace the name of one of the kings of the eighteenth dynasty on the pillar, though it may have been built by Tirhaka; either of the circumstances confirms my view of the history of this kingdom. If it belongs to the eighteenth dynasty, it proves that they extended their conquests beyond even Soleb; if by Tirhaka, that it is to him and his dynasty that we owe all the monuments of Ethiopia. The other temple, apparently a Mammeisi, was surely built by him, and is a singularly bad specimen of architecture, partly excavated from the rock, with a structural pronaos that does not appear ever to have had either a stone roof or side walls.

The only other important antiquity of this country is the strange edifice of Wady Oatib, in which Heeren thought he had discovered the oracle of Jupiter Ammon—a discovery so ridiculous as scarcely to deserve refutation. The building is entirely without hieroglyphics, and of a debased, bad style of architecture, interesting only from its situation. If I may be allowed to have my theory about it like any one else, I would suppose it to have been a caravanserai, or station for merchants, on the road from Axum to Gibel Barkal—a purpose for which its plan is admirably adapted; and this would account for the absence of hieroglyphics, for though these were still used in sacred edifices, it is not probable they would be employed to ornament a commercial one in the age of the Ptolemies or Cæsars, to which there can be little doubt it belongs.

CHAPTER II.

WESTERN ASIA.

INTRODUCTORY.

WHEN we turn from the contemplation of that strange and exceptional form of civilisation which existed in the north-eastern corner of Africa to study those forms which it took in Western Asia, it is difficult to trace any similarities or points of connexion between them, but, on the contrary, we are at once struck by the enormous difference and the almost direct antagonism that exists between the two in all their forms; and though in reality they are so near to each other, not only as to the age in which they were elaborated, but locally they may be said to touch one another, from first to last they remained two separate forms, seeking different aims, and trying to attain them by different means. If our histories are to be trusted, Asia possessed Egypt for more than five centuries, and Egypt ruled in Western Asia immediately afterwards, for nearly a similar period. Yet so distinct were the two races, that though existing in such immediate juxtaposition, and though so completely mixed together, the one with the other, they remained two separate people, with two separate forms of civilisation, each retaining its individuality, and resuming its own forms the moment it was freed from the direct influence of the other.

In Asia we no longer find the polytheistic Fetichism that forms so distinguishing a mark of Egyptian civilisation; but, on the contrary, either a pure monotheism, or at least a most distinct tendency that way. Sometimes, it is true, the elements appear as deified, or the one great God governs the world through subordinate agents; and occasionally an idea is expressed by a combination of men with animals, or animals with birds, and such-like: but these are the exceptions, and neither make up nor express the religion of the natives.

So far as art is concerned, a more important distinction is the total absence of hieroglyphics. In Asia, though their alphabets may sometimes have been syllabic, the letters always are arbitrary signs, never imitative

symbols, as they always were in Egypt, and consequently there is always a distinction between the picture and the text.

In Asia, too, they never seem to have cared much for the bodies of their dead, and neither judged them after death in this world, nor dreamed of allowing three thousand years between their decision and the appeal to the final judgment of the gods. No such immense periods of time ever seem to have occurred to an eastern imagination, and they did not, in consequence, think of erecting buildings that were to last for ever, and to give their founders a mundane eternity, which seems to have been the fundamental idea of Egyptian ambition. Nor did they in Asia dream of continuing one race, one religion, and one form of art, unchanged for thousands of years; on the contrary, forms, and dynasties, and races succeed each other there with a ceaseless ebb and flow, as perplexing to the chronologer as it is to the ethnographer.

In Egypt we can just detect such differences as enable us to classify their forms with more or less distinctness;—here the differences are generic, and people of totally different origin and race pass and repass before us, and succeed one another, without our being able to say whence they came or whither they went; yet each, when before us, has features so distinctly marked as to be easily recognised.

We have, first, the great Semitic race, which seems to have been as indigenous and as early settled on the banks of the Euphrates and the plains of Shinaar as the Egyptian on the banks of the Nile. We are familiar enough with two of its branches—the Arabs and Jews, who retain their nationality even to this day, though singularly sunk in importance from the time when their Chaldæan ancestors inhabited the largest city of the ancient world.

We have, on the other hand, the sons of Japhet, or the great Indo-Germanic race, gradually appearing with the dawn of history, as descending from the table-lands of central Asia, and superseding their Semitic brethren in the fertile plains of which the latter seem to have been the sole original possessors. They gradually possessed themselves of nearly the whole valley of the Ganges; under the Persians, at least, if not earlier, they obtained supreme sway in Mesopotamia, and nearly the whole of Europe is now possessed and peopled by them or the scions of their races.

But between—perhaps before these two—there existed in Western Asia at least one other distinct and powerful race, which I have ventured to call Pelasgic, though we scarce know yet who they were or whence they

came ; and they have now so entirely disappeared from the face of the earth, that but for some uncertain traditions, and the buildings they have left behind them, we might well be permitted to doubt the reality of their existence.

What we do know of them is principally derived from Italy, where they were known as the Etruscans, or from early Greece, where they existed as the Pelasgi, both which we know were colonies from Western Asia ; and in that latter country we find many remains of them, which, when properly investigated, may enable us to fix their original seats, and trace their affiliation with tolerable certainty. It is not, however, in Western Asia alone that we find their remains : their fossils — if I may use the expression — are dispersed over the greater part of Asia ; and even in Europe there is scarcely a country where they do not seem to have formed a substratum to the existing population — extinct, it is true — but without a knowledge of whose previous existence it is impossible to understand many of the phenomena of ancient times, or to account for much that meets us at every step of our investigation.

If we understood anything of the language (of which, however, we do not know one word), philologers would long before this have been able to guess at who they were, and in what degree of relationship they stood to the existing families of mankind ; but in the absence of this test we are left entirely to their artistic remains to ascertain all we can know about them. Had these been more carefully investigated, with this object in view, this would have answered the question, and we should be able to say whether they were Scythians, or Tartars, or Finns (if, indeed, the two first, perhaps all three, are not different names for the same people). But if we cannot yet say positively who they were, we know negatively, at least, that they were neither Indo-Germanic nor Semitic ; and their remains prove that they were a great and extensively dispersed race. Architecturally they may be easily recognised as the Tumulus-raising people, for wherever they existed they raised these circular earthen mounds over the bodies of their dead ; and wherever we find these, either on the Steppes of Scythia, or in these islands, or outside the walls of the cities of ancient Greece or Italy, we may feel assured that we are standing by the graves of the ill-fated Pelasgi.

Besides, however, the inevitable complexity arising from the co-existence of three distinct races of people in the same country, the written annals of Western Asia are far less complete, as we now possess them, than

those of Egypt ; and we have not the half-eternal pyramids and temples to serve as unchangeable landmarks to guide us in our researches, nor, indeed, monuments of any class sufficiently numerous or important for us to elaborate the whole history from them. Recent discoveries have done something to assist this latter branch of the inquiry, but I question much if enough remains to enable us ever to grasp the whole with the same clearness and distinctness with which we do that of Egypt : nor shall we, perhaps, ever be able to restore to the nations of Western Asia that unity and completeness which its monuments give to Egypt. But whether we can do this or not, the study of the antiquities of that country is more indispensable to enable us to comprehend the ancient history of Greece and Rome than that of Egypt ever can be ; for though Egypt may be styled the mistress of Greece, she was not her only instructress — hers was, indeed, the vast storehouse to which ancient Europe traded for knowledge, but Asia was the parent from whom her people sprung, in whose lap they were nursed, and it remained ever afterwards the home towards which her redundant population returned when pressed for room in the new country ; and though much of her learning and many of her forms were no doubt derived from Egypt, all her affections were centred in the East, and all her greatness and all her glories arose from her connexion with that country, and the relations of peace or war which these connexions entailed upon her.

SECTION I.

ASSYRIA.

IF we were to judge from their physical properties alone, we could scarcely avoid the conclusion, that of the three great rivers of antiquity the Ganges must have been the one in whose valley mankind first settled and congregated into societies; not only because of the extent and antiquity of its alluvium, but because of its extraordinary fertility and the general amenity of the climate, which enable man to live with almost as little difficulty and with nearly as few wants as the animals that surround him. Next would come the Euphrates, with its fertile plains and scarcely inferior climate; and lastly would rank the narrow valley of the desert-bound Nile. So far, however, as history is concerned, the direct reverse of this is nearer the truth. We can trace Egyptian history with very tolerable certainty up to nearly 4000 years before the Christian era, and we then find her so civilised, and her arts so perfect, that we scarcely know how to estimate the number of centuries that must have elapsed before a primitive people could have elaborated so complicated and at the same time so fixed a form as that of Egypt in the days of Menes. If, on the other hand, we turn to the valley of the Ganges, the remotest tradition points to a foreign race of settlers immigrating into a remote corner of the valley of the Ganges about 3000 years B. C., and gradually working their way into the heart of the country, and finally occupying the whole northern section of it, as rulers, at least, if not as colonists: but we hardly know who the people were whom they supplanted, nor have we one name or one tradition of that race; nor is there one monument in India that is, even traditionally, ascribed to those primitive inhabitants of that fertile valley.* They and their language still exist in the southern parts of the peninsula, but their history and monuments, if ever they had any, have entirely passed away from the north; and the monumental history of even the immigrating race

* "Picturesque Illustrations of Ancient Architecture in Hindostan," by the Author. Introduction, p. 3 *et seq.*

that superseded them only dawns upon us after the era of Alexander the Great.

Intermediate between these two extremes, both locally and historically, come the inhabitants of the valley of the Euphrates;* but even here we are left to the tender mercies of a few vague verbal traditions, some of which we know have been falsified, and with scarcely a single monument or tangible work of art to guide us in our researches. It is true, we can dimly discern the form of a tower which the sons of men builded in the plains of Shinaar, looming large through the mist of ages; but, except that tower, we have not one single monument that can date before the age of Ninus, and till within the last very few years, scarce any subsequent to his time, sufficiently distinct to enable us to use them to supply the want of written history, or with such strongly-marked features as were requisite for ascertaining either the family likenesses of the race or the degree of civilisation they attained as compared with kindred nations. Something, however, has lately been done to remedy this state of things, owing to the fortunate discovery by M. Botta of the monument at Khorsabad, near Nineveh, and the still more important and extensive discoveries of Mr. Layard in the same neighbourhood, which promise to place the Assyrian empire before our eyes with almost as much distinctness as the Egyptian. Unfortunately, however, neither the results nor the details of these most important explorations have yet been given to the public with that fulness which would enable us to judge correctly either of their extent or value. For the first we have only the letters written during the progress of the excavations by M. Botta to M. Mohl, and published by him first in the "*Journal de la Société Asiatique*," and afterwards in a separate form, and a few plates of his great work, but without either text, or plans, or references of any sort that could make them intelligible. Of Mr. Layard's, nothing authentic has yet been published, though two works on the subject are in the press, and it is hoped will appear before the end of this year; and though in the meantime I have seen most of that gentleman's drawings, and have had the advantage of much personal communication with him, I have not been able to study the subject with that attention which it deserves, nor had materials at my disposal which would enable me to

* I must be allowed to speak of the Tigris as a branch of the Euphrates, as the ancients did, to avoid the unnecessary repetition of the two names, which is otherwise inevitable.

make up my mind definitively on any one point concerning these wonderful discoveries. What I, therefore, have to say on the subject, I say with the greatest diffidence, and hope to have an opportunity of rewriting this chapter, after I have had access to the materials on which any opinion worth listening to must be formed; but at the same time I cannot entirely pass over so interesting a chapter in the history of art, and one without which much that follows must be and remain for ever unintelligible.

CHRONOLOGY.

All the discoveries of Messrs. Botta and Layard were made in the immediate neighbourhood of Mosul, which stands on the site of the ancient city of Nineveh, and there does not appear to be any reason to doubt but that the monuments and the sculpture that adorn them were the works of the kings who reigned in that city subsequent to its foundation by Ninus; and the first question, therefore, that presents itself is, When did that monarch reign? For this there are two systems: first, that of Ctesias, as found in Diodorus,* and of others who followed him, or, perhaps, derived their information from the same sources,† who would make the distance of time between Ninus and Sardanapalus at least 1000, and some of them nearly 1500 years. The other is that of the more trustworthy Herodotus, who places Ninus in the thirteenth century before Christ, in which he is confirmed by Berosus,‡ who gives very nearly all the same date: two authorities which in themselves would easily outweigh the rest, even if the list of the others did not contain their own refutation. That of Eusebius, however, quotes thirty-six kings as reigning 1239 years, and in Syncellus we find the longest giving forty-one during 1460 years; the average of the one allowing $34\frac{1}{2}$ years to each reign, the other more than 35, which I need scarcely say is impossible, and more than double§

* Lib. iii. c. 21.

† Africanus, Syncellus, Eusebius, Vel-leius Paternulus, Æmilius Sura, &c.

‡ As extracted by Alexander Polyhistor, in Eusebius' "Ar. Chron." p. 39.

§ It is singular that in India a similar

falsification, by doubling the reigns of the kings, should have taken place about the same time. See Introduction to "Illustrations of Indian Architecture," by the Author.

the average number of years attained by any equally extended series of effeminate kings in any part of Asia. And we have abundant proof that the rulers of Mesopotamia were not remarkable for longevity in that age, as we have authentic lists of their successors from Nabonasar (B.C. 747) to Alexander the Great, enumerating thirty-one or thirty-four kings during 424 years, thus giving an average of little more than 12 years to each reign, even though this series contains the vigorous and healthy dynasty of the Persians; so that, even if we allow the forty-one names of Syncellus' list, they seem to be all required to make up the more moderate calculation of Herodotus.

There is, however, another point, far more important than any critical examination of these somewhat apocryphal lists, which is the fact—now perfectly ascertained from the study of Egyptian hieroglyphics, and the singular history that study has revealed to us—that during the whole of the eighteenth dynasty, at all events from the reign of Thothmes III. to the death of the first king (Sesostris) of the nineteenth dynasty, or during a period of about five centuries, the Naharaina, or Mesopotamia, was a conquered province of the Egyptian Pharaohs; and it must be observed that there is no break in any of the lists subsequent to Ninus, and no vestige of a tradition of even an incursion from the banks of the Nile after the establishment of his kingdom, but, on the contrary, the history of Nineveh commences with the raid of Semiramis into Egypt, which, though it requires confirmation, points the other way, as it could not have taken place after the accession of the eighteenth dynasty, nor until that race had sunk into decrepitude during the last kings of the nineteenth and the subsequent dynasties.

From all this the conclusion seems to me inevitable that Nineveh was founded after the retirement of the Egyptians, and the probability is that Ninus was only a bold adventurer from Bactria, or the mountain regions on the north, who, during the confusion consequent on the retirement of the conquerors, was enabled to establish his sway over the recently freed provinces, and who chose the situation of Nineveh as nearer his native hills and the hardier tribes, in preference to the more distant ancient capital of Babylon, which, however, was restored by his warlike widow to its former splendour, if not to its former rank as capital of Western Asia.

If these views of the age of Ninus are correct, and I do not know

one single objection to them, there can be no difficulty in reconciling Egyptian with Assyrian chronology, nor the events of the history of the latter country with themselves; but does this answer our questions regarding the age of these recently exhumed sculptures? Are we certain that there was no capital city in the neighbourhood before the building of Nineveh—Resen, for instance, or Calah? and that these sculptures (or some of them, at least) may not belong to a race who held the country before the Egyptian invasion? If we had the chronicles of Berosus in even as complete a state as we have those of Manetho, we might attempt to answer these questions from written history; but it is in vain to attempt to do so from the few fragments of written history that remain, and if ever they are answered it must be from an inspection of the monuments themselves, or by deciphering the inscriptions with which they are covered. The former mode will soon, it is hoped, be available to the European scholar, and the latter cannot long resist the persevering industry and talent which is being applied to its solution. One of the three or four sets of characters which are found on the monuments of that country has already been read, and both the alphabet and the language it is used to express are perfectly understood. It is true, however, that it turns out to be the most modern of all—that the language is an Indo-Germanic tongue, closely allied to others with which we are perfectly familiar; and unless I am very much mistaken, the people that used it were, like their cognate races, perfectly familiar with the use of the Sanscrit alphabet long before they invented this one, which I look on as merely a selection from among the complicated characters used by their predecessors, made by the Persians to represent their alphabet* in terms comprehensible by their new subjects, and which, at the same time, should form a monumental mode of writing externally, like the Median and Babylonian inscriptions, in conjunction with which it was generally used.

This discovery does not, therefore, necessarily ensure our being able to read inscriptions which may be couched in a language of which, like the

* Is not this what Herodotus meant when he relates (lib. iv. c. 87) that Darius recorded his conquests in two inscriptions—one in Assyrian, the other in Greek letters,

apparently as if the language of both was the same, and only the characters different in which it was written?

Etruscan, we know nothing, nor that we shall ever ascertain the value of characters which certainly are not alphabetic in the sense in which we understand the term : for as there are, at least, one hundred and fifty, or, perhaps, twice that number of distinct signs, they must be, to a certain extent, either symbolical hieroglyphics, like the Chinese, or, at all events, to a certain extent syllabic ; and in either case the difficulty is immensely increased, and might be altogether hopeless, were it not for the fortunate circumstance that most of the inscriptions of the Persian period are trilingual addresses to the three races who inhabited that kingdom, or aggregation of kingdoms (the Babylonian, the Median, and the Persian). This may afford us a key, and till it does all speculation on the treasures now so mysteriously locked up in its uncommunicative complexity must be worse than useless ; and till we are either able to read the language of these inscriptions, or to ascertain the date of the sculptures and ascribe them to their rightful owners, it is little use our speculating on the race or affinities of the people : when either is done, the problem is solved without further trouble. With a complete series of the sculptures before me, I would not hesitate to undertake the task from them alone, even though the alphabet should remain as mysteriously illegible as it now is.

No. 19.



Lion Hunt.*

MONUMENTS.

In examining the monuments themselves, the first thing that strikes the inquirer is the absolute difference that exists between these sculptures and those of Egypt, though they must be so near in age to some, at least, of those we now find on the banks of the Nile; and though we know, that the communication between the two countries at the time they were executed—or, at least, immediately antecedent to it—was frequent and intimate, still there is not a trace of Egypt or her arts in any of the monuments of Assyria.† To me it is self-evident that this points to a distinct and generic difference of race, though it is premature to speculate in what that difference consisted, as it must form the intrinsic foundation of so marked a characteristic; but, even without ascertaining what it was, there is an obvious and extrinsic one, which is quite sufficient to

* From Mr. Layard's sculptures in the British Museum.

† I am, of course, aware that Egyptian cartouches, and carvings, and scarabæi, and such-like things, have been discovered buried in the mounds of Nimroud and elsewhere, but they are always quite distinct from the true Assyrian sculpture, and nowhere are integral. If the older monuments are found to be antecedent to the invasion

by the eighteenth dynasty, they may have belonged to, or been imported by them. But it has been suggested by Mr. Birch of the British Museum, that the twenty-second Egyptian dynasty were Assyrians, which I think by no means improbable; this would at once account for the existence of these foreign fragments, without disturbing the theory of the whole being subsequent to Ninus.

account for it—as far as, at least, at present requisite—and consists in the use by the Assyrians of alphabetic writing, separate and distinct from the imitative sculpture. Thus we no longer find in these Asiatic monuments the half verbal, half representative pictures, which make up the art in Egypt; here every piece of sculpture is accompanied by an expletive written text, in a different compartment, and as separate from the actual representation as it afterwards became among the Greeks. This was an immense point gained, for it at once set the artist free to copy nature, and to reproduce the best possible imitation he could of the objects or incidents it was wished to represent; and he was no longer obliged to tell every thing by painting, nor trammelled by the necessity of making his picture do the duty both of words and signs, as was the case with the Egyptian artist.

Another accidental circumstance which, no doubt, had considerable influence in the form of Assyrian sculpture, was the material in which the artists wrought, which was gypsum or alabaster (sulphate of lime, as contradistinguished from the carbonate, or marble), which was so soft and easily wrought that the artist could work with almost as much freedom as he could in clay; and, in consequence, there is a freedom of handling and boldness of accentuation in their works, totally dissimilar to the hard painstaking outline of the granite-carving Egyptians.

It is, no doubt, attributable to the fatal facility arising from this last peculiarity that we find so much attention paid to the jewels and ornaments of the dress of the principal personages, to the trappings of the horses, and generally to all the still life or inanimate objects, which in this class of art assume a prominence more characteristic of the old German, or Dutch styles, than any of its higher forms, and certainly detract from its merit as a high, pure style of art.

Besides these there is the all-important characteristic of Religion. The Assyrians were not monotheistic, but certainly not so polytheistic as the Egyptians, who indulged in an African Feticism such as no Asiatic race ever sank into;* and there was in consequence no necessity for all that strange complexity of symbolism that is so repulsive in Egyptian art. There are hawk-headed deities here, it is true, and strange combinations of bulls with men's faces, and of lions with bulls', and such-like; but it

* Unless it be the modern Hindus.

is insignificant in extent compared with what we find in Egypt, and not greater than we find and admire in Greece, so that it would be hypercritical to be offended with it here.

Notwithstanding those steps in advance, and elements of purer art, that of the Assyrians was far from being free from many of the defects of the Egyptian style. They had no more conception of linear or aerial perspective than the Egyptians, though, owing to their use of writing, they had not the necessity for the use of what might be called social perspective, in which art the latter people so much excelled. Still we find here, in a siege, for instance, that the defenders of the city are generally larger than the towers they stand upon, and the besiegers are scaling with ladders, walls so relatively insignificant, that they could much more conveniently step over them; in another instance, a party is employed setting fire to the city gates, though when these are burnt the besiegers will scarcely be able to insert their hands, certainly not their heads, through so small an opening as the fire will have opened for them when the gates are entirely consumed. These and many others, however, are the characteristics of all rude art; the aim was to tell the story, not to produce an optical deception: when they succeeded to their satisfaction in the first requisite, they thought they had attained the great end of all art. Even in this point of view, however, if we look at the picture alone, it must, I think, be admitted that, phonetically, Assyrian art is inferior to Egyptian; but when we can read them, it probably will be found that the Assyrian pictures, taken together with their inscriptions, contain a better and more circumstantial account of a given event than the best Egyptian picture, with its hieroglyphic expletive, did or ever could do.

I am, perhaps, expressing an opinion without having had sufficient means of judging, but I cannot help thinking that, notwithstanding its superior mode of phonetic utterance, the Assyrian sculpture marks a lower grade of civilisation and of mind than the Egyptian: there is a taint of vulgarity and childishness which seems to run through the whole, from which the other is quite free. To me Assyria seems like an unformed child, but in a right path of art; Egypt like a full-grown and fully-developed man, but in a wrong path. The one died shortly afterwards, and left no inheritance; while out of the other grew the arts of Greece.

One very remarkable fact has been brought to light by Mr. Layard's discoveries, which is, that the more modern specimens of art are the

least perfect, and that as they ascend upwards in the scale of antiquity they become more and more perfect, and we lose the thread of the sequence just as we have arrived at the period of greatest perfection.* The proofs of this will, no doubt, soon be published; but from the relative position of the different slabs, and the circumstance that some of the best have their faces turned towards the wall, and inferior sculptures engraved on their backs, there is very little room to doubt so singular a fact. If, therefore, we assume the monument at Khorsabad to be one of the most modern of those hitherto discovered — as its sculptures are certainly as bad as any — and place it as contemporary with the destruction of Nineveh by the Medes, or as belonging to their dynasty, which I am inclined to think it more probably is — and arrange the remainder of the series according to their perfection during the five or six centuries that preceded that time up to the age of Ninus, we are then only on the threshold of an art which may have reached its culminating point before his day, or, at all events, must have passed through long centuries of gradual elaboration before it could have reached the point at which the present discoveries leave it; and this not an art that was either a part of or similar to that of the Egyptians, but a totally distinct and separate form, born and elaborated on the banks of the Euphrates, and antagonistic in almost every respect to that which was indigenous on those of the Nile: so that these discoveries, even supposing them perfect, will reveal to us the history of the decline and fall only of Assyrian art, and we must look elsewhere for the history of its rise, and the representation of its hour of greatest glory. The new light already takes us beyond the limit of all we formerly dreamed of, and where are we, therefore, to look for the rest of the series?

I need scarcely add that all these Assyrian *bassi relievi* were originally painted, though it is only in a few of them that any traces of painting can now be found. But colour is far too useful an adjunct in enabling the artist to give clearness to his composition, and far too beautiful a thing in itself to be neglected by any people who are using their intellect, and

* The two woodcuts given in this chapter, the Lion Hunt and Garuda, belong to these two periods of art; the first to the earlier and more perfect, the latter to the less so: but they are so dissimilar in sub-

ject as not to form any means of comparison. Indeed, I have not the means, even if I had the limits necessary, to attempt to exemplify it.

merely trying how they can best express themselves, and at the same time produce the most beautiful work of art : so that, even if no trace of it now remained, I should not hesitate to assert that it must have been so. In the plates, however, published by M. Botta in the "*Journal de la Société Asiatique*," there are several which are coloured, and many more which are stated to be so, though the colours are not given ; and on the whole we should be more surprised that, after having been buried for more than 2000 years, so much remains, than that we do not now find colour on all of them.*

No. 20.



Garuda.†

* In describing the various works of Semiramis at Babylon, Diodorus, quoting from Ctesias (lib. ii. 10), says : — "They moulded figures of animals on the bricks while they were still soft, and *painted* them to imitate the various forms of nature. * * * On the walls and towers all kinds of animals were carved and *painted*, admirable for their correct imitation of nature ; the whole representing a grand hunt of various animals, whose height exceeded four cubits.

Among them was seen Semiramis, on horse-back, striking a panther with a spear ; and near her, her husband, Ninus, transfixing a lion with a javelin." Such scenes are frequent in Messrs. Layard's and Botta's collection, and seem to have been the favourite subjects for the Mesopotamian sculptors from that day to the time of the later Sassanides.

† From M. Botta's great work in course of publication.

ARCHITECTURE.

Till the plans and details of the buildings are published, it is in vain — or, at least, premature — to speculate either on their forms or purposes. Enough, however, has been already made public to make it certain that they differ from all other buildings hitherto known to us; and so far as I can judge from what I have seen, they seem to consist of a series of rectangular apartments: some of these are so large that it is difficult to understand how they could have been roofed, and we may therefore assume them to have been open courts, and some are so small that they must have had roofs—indeed traces of such have, I believe, been found. These courts, or rooms, seem to have been separated from one another by thick walls of sun-burnt bricks, against which these slabs of indurated gypsum were placed, a little above the level of the floor; and above them the walls were covered with plaster, and painted with various arabesque and architectural ornaments up to the roof. The roofs, apparently, were formed by wooden beams, supported, where necessary, by wooden pillars, and as these have decayed they have fallen in: probably they were covered with earth, and the sun-burnt bricks, from exposure to the atmosphere, have returned to their original mud, and filled up the apartments; and after this process, either from the natives using the mound thus formed as a foundation for their mud dwellings, or from the drifting of the sand, they have become heaped up to their present height: unless, indeed, they were originally sepulchral tumuli, and their apartments structural hypogea, meant only to be seen by artificial light.

If we knew to which of the great families which have successively occupied Asia the language of the inscriptions belongs, there would be no great difficulty in ascertaining whether these buildings were dedicated to the living or to the dead; or if, on the contrary, we knew what really was the purpose of the edifices, we might with equal certainty predicate to which class the language belonged. But as neither of these postulates has yet been ascertained, no correct opinion can be arrived at as to whether they were temples, or palaces, or tombs: my own impression is that they combined all the three purposes in one edifice. In Egypt we are familiar with the combination of the first two into one, which was, indeed, the universal practice of the age immediately preceding this one. In that country, however, the abode of the dead was always distinct from

that of the living; at least it has always been found so in every instance we know of, without one single exception. Yet how are we to account for the fact that Manetho and the Greeks describe the palace-labyrinth as the *tomb* of Mœris, or Lambares, and that Diodorus describes the *tomb* of Osymandyas* as a palace-temple so like the Rhamesion that it is generally supposed to be the identical building to which he refers? Could we believe that Osymandyas was one of the kings of Egypt of Assyrian descent, or that Diodorus was confounding an Assyrian with an Egyptian monument, the circumstances might have been intelligible, but of this we have no proof. Still on the whole, were I to look for one name which would characterise these buildings, I do not know any one that would be more appropriate than Labyrinth, which seems to me to come nearer their true description than any other. May they not have been the king's palaces during his life, and his sepulchre and monument after his death? Semiramis, we know from Diodorus, buried her husband Ninus in the palace, and raised so enormous a mound over his grave as must have inhumed the whole edifice besides, if we may believe his apocryphal friend Ctesias,† on whose testimony the fact rests. To the present day the tomb of a Mogul is his garden-palace during his lifetime, after his death it becomes his sepulchre. But I must be warned from theories till I have more facts at my command.

It is usually asserted that no architectural details have been found in the excavations in the neighbourhood of Nineveh, and if we persist in believing that nothing deserves that name that is not carved and raised, the assertion, I believe, is correct. The fact, however, is, that the architecture of the Assyrians, so far as is yet known, was Euehromatic, and not Eumorphic. They grasped the easiest and most beautiful mode, but, unfortunately, not the most durable. The upper part, however, of the walls of all the apartments discovered by Mr. Layard is covered with painted architectural details of great beauty and elegance, and when published, will shew that it was from this country that the Greeks got the Ionic form of their art, though it was from Egypt that they borrowed the Doric. I believe, however, that when they are published it will be found that there is scarcely an idea or a detail in Grecian art that may not be traced to one

* Is it possible that Mendes, Mandouf-
 tep, and Osymandyas, may be different forms
 of one Assyrian name, and the great Pyra-
 mid of Saccara after all a copy of the
 Tower of Babel?
 † Diodorus, ii. 7.

of these sources, but more, perhaps, to this than to the other, at least so far as detail is concerned ; but the want of pillars in these edifices, and, indeed, of columnar or accentuated external architecture of any sort, will prevent the similarity from being perceived by those who are not familiar with the details and half-obliterated paintings of the Grecian styles. When, however, it is understood that ornamental architecture may be colour as well as carving, and was, in ancient days, more frequently executed with the brush than with the chisel, and on the contrary, in the times we are now speaking of, that painting was far more frequently executed with the chisel than with the brush, we shall get over these narrow views of the matter, and be able to trace affinities and similarities where all is now dissonance and mystery.

When the specimens on their way home are once accessible to the public, and the complete drawings made by Mr. Flandin of the Khorsabad monument, and those of Mr. Layard, are published, I feel convinced that they will throw a stronger and clearer light, not only on the ancient history of Greece and Italy, but also on that of India, than any other discovery that has yet been made ; and even if we should not be able to decipher the inscriptions, the details of the art will suffice to point out the affiliation of almost all the primitive nations of Asia and Europe : so much so, indeed, that I feel considerable reluctance in publishing this work without a more intimate knowledge than is now available of such a storehouse of fact, and if I thought there was any chance of their appearing in a reasonable time, would stop the publication for them ; but, from my experience of the delays that occur in such publications, I prefer pursuing my own course, and publishing the work as it is, with all the necessary imperfections inherent on this want of knowledge, which will be supplied more perfectly by others, and may be available to me if the work is deemed of sufficient interest to reach a second edition.

BABYLON.

If the date of the thirteenth century B. C. above given to the reign of Ninus be correct, or even if it be only admitted that he founded Nineveh, as a new city, where none of importance existed before, it is self-evident that there must have been some great capital city in the valley of the

Euphrates before his time; and the assertion of the Bible, conjoined with the concurrent testimony of all antiquity, points to Babylon as the original seat of the Chaldæan race, and the first great capital city established on the banks of the Euphrates.

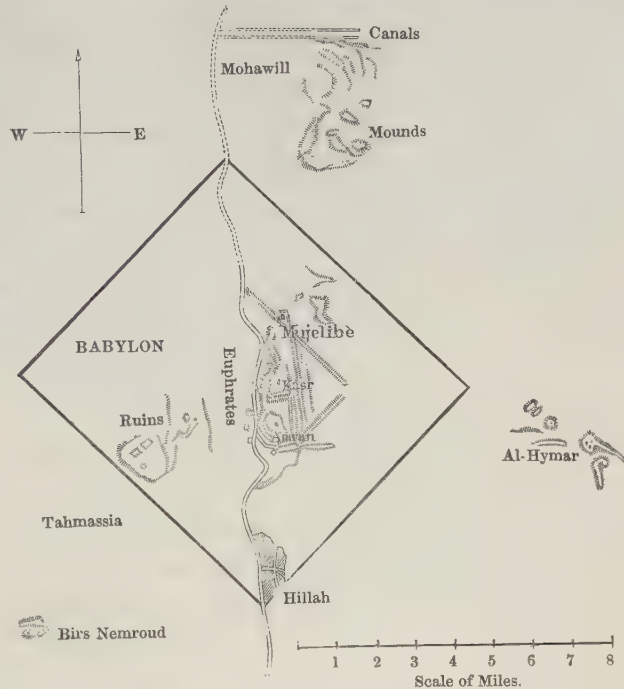
If we may trust the abstract of the lists of Berossus, quoted from Polyhistor by Eusebius,* there were before Semiramis, counting backwards from her reign, seventy-seven kings, who reigned for 975 years up to the period of the Median invasion; and before that, eighty-six native kings, who may have reigned for a thousand years more, up to the Deluge, or the founding of the city; this would make the latter event synchronise almost exactly with the foundation of Memphis by the Pyramid-builders, and the Median invasion with that of the Shepherds: both which events I am inclined to identify the one with the other.

Even, however, if both history and tradition were silent as regards the existence of long races of kings before the time of Ninus, there is one fact stated above which would in itself be sufficient to prove their existence. For if it can be substantiated — which I see no reason to doubt — that the arts of the Assyrians, so far as the Nineveh sculptures are concerned, become more and more perfect as they become more ancient, it is clear that men must have been congregated in large cities in the valley of the Euphrates long before the earliest of those sculptures were executed; and there is no tradition of any city where this could have been effected but this one of Babylon: at all events there must have been an older city than Nineveh, and if not this, which one was it, and where? Unfortunately, the ruins of Babylon itself present no relics which tend either to confirm or invalidate any argument of the sort, as they consist only of shapeless mounds of brickwork; and neither a painting, nor a piece of sculpture, nor an architectural detail, either painted or carved, has yet been found in such a position as to be clearly integral, or so perfect as to admit of its comparison with any other style.

However interesting, therefore, the mounds of Babylon may be to the historical student, and more especially to those occupied with biblical antiquities, it is scarcely entitled to occupy much space in a history of art; and the woodcut on the following page will point out as much as is requisite for my present purpose of the results of my inquiries into the subject.

If any relic of old Ante-Egyptian Babylon remain, it must be the base

of the Birs Nemroud, which is built of hard kiln-burnt bricks, carefully made and as carefully cemented, and bearing most evident marks of having been destroyed by fire at some very remote period. From the inscriptions on the sun-burnt bricks, both in and around it, it must have been restored or rebuilt by Nebuchadnezzar, and may have been afterwards destroyed by the Persians. From its position I conceive it never was, or could have been, within the walls of the city, but at some distance from the river, on the plain of Shinaar.



When Semiramis rebuilt or restored the old Chaldæan capital after the death of her husband, she built a temple to Baal, or Belus, in a position—as far as can be understood from the accounts of Herodotus and the Greeks—exactly answering to that of the Mujelibè, which it does not appear to me to admit of a doubt is what remains of her temple; and I cannot see any reason either for supposing that her temple was identical with the tower of Babel, or that there may not have been two or more temples to this their great god in such a city as Babylon: indeed it is so evident, that if Semiramis built it, it was not the tower of Babel; and that, on the contrary, if it was the tower, that queen could have had nothing to do with it, that I cannot understand how antiquaries have managed to confound the two, and puzzle themselves by trying to reconcile what was from the beginning so essentially different. It is true that, if this view is correct, the Greek historians do not mention the Birs Nemroud, or original tower; but if we were to trust to them, we might with equal propriety argue that there never were more than three pyramids in Egypt: in both cases it will be found safer to trust our own eyes.

The two mounds called by the Arabs the Kasr and the Amran are generally allowed to be the remains of the palace and the celebrated hanging gardens; and I think there can be little doubt but that this is the correct view of the case. The mounds at Al Hymar I take to be the necropolis of the city, and as such necessarily without the walls: if one of them were opened it probably would do more to throw light on the history and antiquities of the place than any excavation in the city itself or in the proximity of the river, could do; and I feel convinced, that if there is any hope of finding such a series of antiquities here as have been discovered at Nineveh, it is among them that we must look for them.

The wonder of Babylon, however, was its wall, which, if we might trust Herodotus and Ctesias, was certainly the most extraordinary work of fortification in the ancient world. Its height and breadth, however, as related by them, are so very apocryphal, that in the absence of all indications on the spot which could either confirm or invalidate their testimony, I shall say nothing about it. For its extent I have, with Volney,* adopted a length of stadium which gives a common measure to the lengths quoted by Herodotus and his opponents; but even this makes their extent somewhat more than thirty miles,† an immense but by no means an impossible extent for a mud wall to be built on a flat plain: the real city, however, appears to have been the inner inclosure, now nearly filled up with mounds and ruins.

In restoring the plan of the city, it is usual to represent the river as entering it at right angles to the northern wall, which is warranted neither by the probabilities of the case nor the testimony of the ancients, and still less so by the remains on the spot, for the walls of the inner inclosure, which there is every reason to suppose were parallel with those of the outer, shew that the river ran along its diagonal, and there are no remains that would lead us to suppose that any of the walls ran at right angles to the river; which would be, besides, at variance with the experience of all other cities of the world: for whenever they are built on the banks of a navigable river they spread themselves along its margin as far as they can, and only bulge out in the centre, where overcrowding naturally takes place. In the absence of better authority, that of Ctesias is nearly definitive on

* *Nouvelles Recherches sur l'Histoire Ancienne*: "Babyloniens," c. vii.

† The *enceinte continue* of Paris measures twenty-one miles along its inner boundary,

and, if we add one-fifth for the returns, gives twenty-five linear miles of wall, exclusive of the forts and outworks.

the point ; he makes the circumference of the city 360 or 365 stadia, and the length of the quay, 160. Had the river cut the city at right angles, it would have been only 90, or nearly so ; and even along the diagonal, only 128 or 130 : but there is nothing to shew that all the sides were equal. I suspect that the word "square," as used by the Greeks, must be understood with considerable latitude, and it is more than probable that though such might have been its general form, none of its sides were of exactly the same length, and none of its angles right angles. But be this as it may, it is certain the course of the river was not straight, for the simple reason that this would be impossible in a river of such magnitude ; and as the quay certainly followed its windings, they may have made up, or nearly so, the 30 stadia that remain to be accounted for.

There is very little doubt but that we shall very soon now be able to read the inscriptions on the bricks, so far, at least, as proper names are concerned ; and that done, we shall be able to ascribe, on far more certain grounds than the testimony of the Greeks, to Semiramis, or Nitocris,* or Nebuchadnezzar, the buildings which each of them erected for the adornment of the city. But as I said before, I despair of anything being found of the old city, unless it be under the mound of the Birs Nemroud ; and, indeed, of anything being found anywhere of interest to the history of art, unless it be in the mounds of Al Hymar.

PERSEPOLIS.

If these recent discoveries throw so little new light on the architecture of these ages (using that term in the sense in which we usually understand it), we can only turn with even increased interest to the group of buildings in and about Persepolis, which are invaluable to us, not only on account of their own intrinsic beauty and historical importance, but because they are the only remaining buildings of their age and style, and almost

* It is rather singular that this should be the identical name quoted by Manetho and Eratosthenes, as reigning in Egypt in the sixth dynasty, during the period of the Pyramid-builders. Herodotus (ii. 100) seems to have suspected that they were

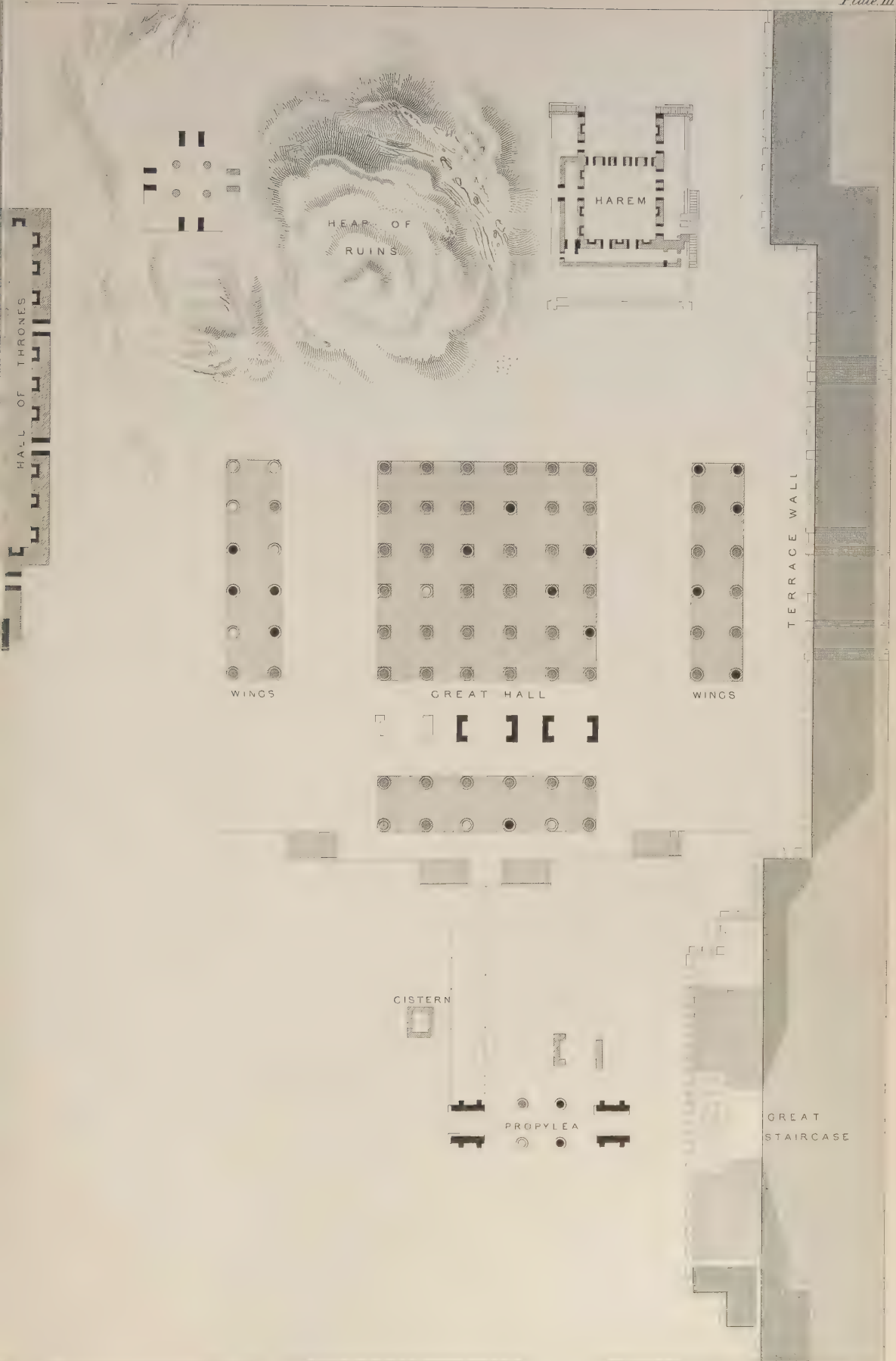
the same person, and there is something singularly Mesopotamian in his story of her revenge : the subterranean apartment and hidden canal are Assyrian, not Egyptian features.

the only architectural examples of those ages now existing between the Jordan and the Indus.

The principal group of these buildings is situated on a lofty rock-terrace, at the foot of a mountain; the length of the platform, north and south, is about 1400 feet, and east and west, 1000: on the east it is bounded by the mountain, on the west the terrace-wall stands on and overlooks what must have been at one time a richly-cultivated and well-watered plain. On the edge of the terrace, about half-way between its northern and southern extremities, stands the principal building, now called the Chehil Minar, or Forty Pillars, though the original number was seventy-two, and only fifteen are now standing.* The other buildings are dispersed about the platform as convenience dictated; and one of the most pleasing features in the whole is the taste with which the architects have availed themselves of the irregularities of the surface to group their buildings on different levels, taking especial care that no two should be alike or symmetrical—nor placed on the same axis: so that every building or apartment is a separate design and tells its own tale, while the whole taken together group themselves into one pleasing and picturesque whole. This, however, is not peculiar to Persepolis, but to all true styles of art, and was as essentially a characteristic of the Grecian and Gothic as of Persian architecture.

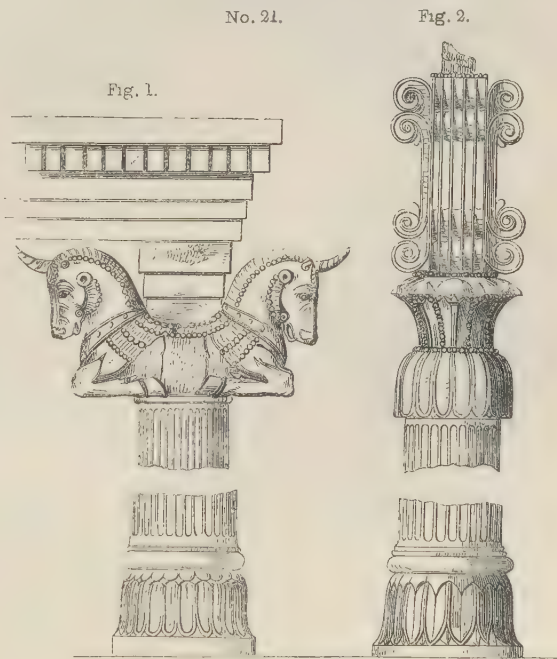
The Chehil Minar, or Great Hall, extends about 250 feet north and south, and 350 east and west, and consists of a centre phalanx of 6×6 , or 36 columns, and three porticoes of 12, each of a different order. (See plan, Plate III.) There are some remains between the northern portico and the centre building which would seem to intimate that the roof was there continued across, but as nothing of the kind is found between the centre and side porticoes, and the distance between them (60 feet) is too great to be roofed without some central support, we must assume that, if connected, it was only by curtains: but as the whole height of the central building is almost exactly the distance between the two, it is evident that the curtains that hanging down would enclose or wall the centre would, when drawn across, roof the division; and this mode of managing matters is so common in the East, and so consentaneous with the other peculiarities of the style, that to me it appears almost self-evident that this was the case, and that this was the principal use of the side porticoes.

* Ker Porter, i. 636.



Without more drawings than it is worth while making, or some familiarity with the customs of the East, it may not be easy to understand either the convenience or the beauty of such an arrangement ; but those who have seen the royal halls of Agra and Delhi, or of the native princes of Hindostan, will appreciate its elegance as used here, and understand at once the manner in which the curtains could be applied so as to convert the hall into the most beautiful tent that can well be conceived. Indeed those who wish to trace architectural forms out of tents had better not go to China, where the analogy does not exist ; nor will they find a trace of it to the westward of the Euphrates ; but if there is a petrified encampment in the ancient world, it is at Persepolis : however even there the affinity is so remote, and the style arising from tents so far removed from its prototype, that, though the theory may amuse, it can hardly instruct.

With regard to the order, it is more than usually interesting, architecturally, as being the only instance we have of an order at its culminating point of perfection retaining its wooden epistylia. It is true that in other styles, especially the Doric, we can trace a wooden original, but, long before we became acquainted with it, they were translated into stone ; an essentially stone pier was substituted for the wooden one, if such ever existed,—which I do not believe,—and an abacus interposed between the pillar and architrave, and the whole order made constructively a stone order, with only a reminiscence of its wooden prototype ; and in the Roman and Gothic styles, as well as the Egyptian, the pillars were always connected by stone beams or



Orders at Persepolis.*

* I have taken the pillar and capital in this cut from Texier's plate, and restored the entablature from Ker Porter's view of

the tomb, an architectural elevation of it not having been given by either.

stone arches. Here, however, the roof was of wood, and the forms of the capitals shew that they were designed for wooden epistylia only. For whenever a wooden superstructure is put on a stone pillar, either the wood must be let into the stone or the stone into the wood, to ensure stability.

No. 22.



Capital of Order at Persepolis,
by Ker Porter.

At Persepolis both modes were adopted, the outer ranges being surmounted by Y-shaped capitals, formed of two demi-bulls, facing different ways; and in the hollow of their backs the beam was placed as we see it in the rock-cut façade at Nakshi Roustam, where the whole order is distinctly shewn.

Unfortunately, we have no rock-cut example to shew us how the epistylia were arranged in the other or inner order, and the representations of different travellers differ so immensely, that one scarcely knows what to choose or what to believe. Fig. 2 represents the order of the propyla, in which both Ker Porter, Texier,* and Flandin† agree so exactly as to give considerable confidence in the correctness of all three. The Baron Texier, however, represents the order of the great hall as an exact counterpart, on a larger scale, of this one, while Porter represents it as in the annexed woodcut (No. 22), which is copied exactly from his plate, and he distinctly asserts, in the text, that it had only two volutes on each face instead of four; that some of them were squared off, and unfinished; and that, from appearances, something must have been inserted between the two lower divisions of the capital.‡ The only way that occurs to me for reconciling these discrepancies is by supposing that Texier has represented one of the sixteen internal columns of the hall, which, from their position, could not have had any members resembling the architrave and frieze as I have rendered it, and Porter one of the external ones; but even then it is more than probable

* Ker Porter, p. 45; Texier, pp. 105-7.

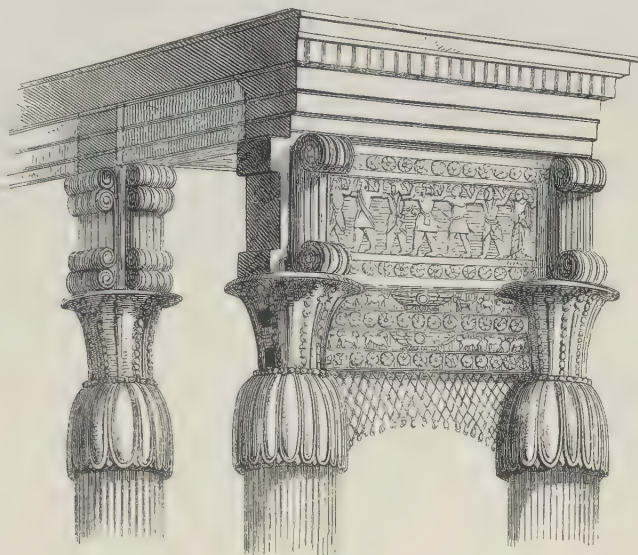
† In the great work of Messrs. Flandin and Coste, the same pillar is represented almost alternately with two and four vo-

lutes; Mr. Flandin affecting the former, Mr. Coste the latter number.

‡ Ker Porter, vol. i. p. 636.

that the angle columns must have differed from the intermediate ones. But putting together the representations on the tombs and on different parts of the sculptures of the palace, which seem to represent something of the sort, I believe the annexed woodcut (No. 23) to have been, as nearly as can be made out, the correct form of the order in its integrity.

No. 23.



Restoration of Order at Persepolis.

Another discrepancy occurs in speaking of the pillars of the propyla, Ker Porter asserting that their summits are "perfectly smooth, without the least vestige of any loose fragments,"* while Texier† represents them with the same rough tenon on the top as is seen on those of the hall, and evidently meant to be inserted into a wooden beam. Had there been only two, I should have felt inclined to believe that they were obelisks like Jachin and Boaz that Solomon set up in front of his temple; but as there are four, I think it more probable that they supported a roof: indeed the whole disposition of the propylon seems to render this necessary, for without a roof the building is unintelligible and unmeaning.

Ethnographically, this order is singularly interesting to us, as being as certainly the proto-Ionic as certain pillars of the Egyptians were proto-Dorics: for it only required the capital to be placed on its side on the top

* Ker Porter, vol. i. p. 590.

† Texier, "Arménie et la Perse," p. 102 *bis*.

of the pillar, so as to suit it to bear a stone architrave instead of a wooden one, to make it into an Ionic capital; and the base and shafts of these columns, both in proportion and detail, are exactly the order as we find it in Ionia, and even in Athens, some centuries later. Of course I do not mean to assert that the Ionians copied literally this individual building; but it was not the only example: there must, at that age, have been thousands, more or less like it, existing between Persepolis and the shores of Ionia; and, probably, some more like the more modern Ionic than even this. Unfortunately, however, we have not one specimen of that order left as it existed before the Persian war; and but for this one example of it in its native form and country, we should be left in utter ignorance of whence the Greeks derived a form so different from their usual modes of building.*

Scarcely less beautiful than the Great Hall itself is the quadruple flight of steps that leads to it; not only are they noble in dimension and design, but the sculpture and ornaments with which they are covered elevate what is usually a mere common-place piece of utilitarian art into an object of fine art of the greatest beauty,†—another proof, if such were wanting, that architecture does not reside in columns or temples, but that every object may display its beauties where the artist is in earnest and knows what he is doing; and I need scarcely add, that, without artistic feeling and taste, no size or no exuberance of ornament will ever make any building a work of art, or a thing to be admired, though it may be wondered at.

In all the sculptures that adorn these stairs, or the pilasters of the Hall of Thrones, as it is called, as, indeed, in all the *bassi relievi* or ornaments that adorn this palace, there is not a single attempt at historical art; they all represent processions bringing offerings or gifts, or the king

* The details in M. Layard's discoveries might have cleared up this point, but scarcely so distinctly and so evidently as a columnar order would do; at least, to those who look on architecture as a thing made up of stone posts.

† The lower flight of steps that leads from the plain to the lower level of the terrace on which the propylon stands, is also designed on the same grandiose scale of magnificence as the upper flight; and the steps themselves are composed of stones of

colossal dimensions, one stone often taking in three or four steps. There are, however, no figured sculptures; on the contrary, the front wall is composed of rude, polygonal masonry, like the walls of Mycene and Tyrinthus. Till the subject is better understood, it would be straining the analogy too far to say they did this because they spoke Sanscrit; but the coincidence is curious: it could not be from ignorance, for the masonry immediately above is as perfect as could be desired.

sitting or moving in state with his attendants,—peaceful scenes, in short, from the still life (if I may so call it) of the Persian monarch ; but nowhere war, nor battle, nor conquest ; and even the mythological subjects bear but a small proportion to the others. Before the discovery of the Nineveh sculptures, the natural conclusion was that the Persian artists were unequal to portraying the stirring scenes of active strife, though they could represent with great truth and delicacy of finish the figures or portraits of persons in repose. More than half, however, of the figures at Nineveh are engaged either in fighting, or the chase, or some such active pursuit, and as they were, undoubtedly, anterior to these in date, we must look for an explanation of the peculiarity, either in the different destination of the buildings, or some other motive than that of inability. If we knew what the buildings discovered by Messrs. Botta and Layard really were, perhaps the answer would be easy : this one we know, at all events, was neither a temple nor a monument ; and if that were the cause, I would applaud the taste that banished from the house of the king any image but that of the obedience and love of his subjects, and the representation of that state which Eastern monarchs have always so much valued, and deemed of such paramount importance to their very existence. If the other were a monument, it is there that the history of the reign and its active exertions would and should be portrayed. Or was it that the more perfect alphabet of the Persians,—for I believe they used the written Sanscrit alphabet, as well as the monumental transcript of it in arrowhead characters,—enabled them to dispense with the representation, and trust to their written accounts for the record of their prowess, and its results ? Except in the only instance of Miltiades,* the Greeks seem to have done so ; but were the Persians so far advanced in civilisation and the use of the alphabet ? Or are we to look for the explanation in the fact alluded to above, of the gradual decay of art in this part of the world from the time it first dawns on us till we lose it under the Greeks ? and, consequently, that the artists had, under the Persians, lost the power of representing the higher and more difficult subjects with which their brethren grappled in earlier times, and that they were obliged to content themselves with more easy and mechanical forms of art. The truth, probably, is, that all these causes were combined, some in a greater some in a less degree, in producing that form of art which is

* In the Pinacothek at Athens.

found at Persepolis, and those differences which exist between it and the earlier and more perfect art of the Ninevites.

The little pyramidal tomb of Cyrus at Pasargadæ, and the rock-cut tombs at Persepolis and in its neighbourhood, shew a tendency towards this mode of architectural display scarcely to be expected from a people of so purely Arian race as the Persians. Perhaps, however, we ought rather to wonder that in a country which was then, or recently, so purely Semitic and Pelasgic, and which then held Egypt as a conquered province, the kings should have given way so little to the prejudices of the time and locality as they did, and did not erect pyramids or mausolea to cover their bodies and perpetuate their memories. Be this as it may, these tombs, though interesting to the antiquary, are of little value to the artist, being generally small and insignificant, and displaying no new feature of tomb architecture from which anything can be learnt or imitated.

Of temples, properly so called, the Persians have left us less than even of their tombs; nor are there any passages in ancient writers that would lead us to suppose they ever possessed any that were remarkable for either their size or their magnificence. Indeed, the more I examine the question, the more do I feel convinced that the temple is not an original form of purely Indo-Germanic worship, but an invention of the Egyptians, or some other non-Indo-Germanic race, who first thought of erecting a house for their god; and it was only adopted by people who either were borrowing wholesale from them, or who, from proximity of locality, were more immediately under their influence. It, however, became a most essential element in the religion of the Greeks and Romans; and the idea has been so thoroughly ingrained in us by our Gothic forefathers, that we can scarcely understand any nation wanting it. But I fear it must be allowed, that of all forms of worship that men have hitherto adopted, the architectural form is the lowest and most material; and, of all the various paraphrases of the "*Te Deum*," the one an intellectual people professing a spiritual religion ought least to care for or practise. So, at least, thought the ancient Persians,—with them God was everywhere, fire was His symbol, the firmament His throne; the sun and the stars represented Him to man, the elements were His ministers; and the most acceptable worship, a pure and holy life. They thought this better than building even the largest and handsomest house for Him. As artists, we cannot but regret this, as it deprives us of a form of art that could not but be interesting and instructive: but were they, or are we, right?

SECTION II.

SYRIA.

TEMPLE OF SOLOMON.

It does not appear from anything that either history or tradition has handed down to us, that the inhabitants of Syria ever were temple builders, or that they possessed before the Roman period any buildings of that class which were remarkable either for their size or the beauty of their architecture. Still there is no country where it would be more interesting to find some remains, however small, of their ancient style; for, owing to the adventitious celebrity which Solomon's temple has obtained over the whole modern world, from the far east to the distant west, anything that could throw light on the style or form of that edifice would be of more interest than almost any other antiquity which could be discovered. Unfortunately, however, not one vestige of any contemporary building has yet been brought to light by all the industry and learning that has been applied to the subject, and nothing even approximating to it so nearly, either in age or locality, as to afford a starting-point in our researches, and we are left, therefore, entirely to the verbal descriptions in the Bible for all our knowledge regarding it; any one may satisfy himself how imperfectly they, or indeed any form of words so employed, can represent a material thing, by glancing at any of the thousand and one restorations of this building which adorn our older Bibles or modern religious publications, no two of which resemble one another to even such an extent as would enable one to say they represent the same building,—a fact, the knowledge of which is only acquired by the superscription on the plate. Latterly, it must be confessed, more sober ideas have begun to prevail regarding this temple, and so far from being the largest and most splendid the world ever saw, it is now generally admitted to have been at least one of the smallest temples of antiquity; and whatever splendour it possessed was owing to the quantity of the precious metals used in its decoration, or the art with which they were applied, though of this we have not, nor can we now obtain, any means of judging.

Recently the tendency has been to explain its peculiarities by a refer-

ence to Egyptian architecture, on the assumption that the Jews having been so long captive in that country, and settled so near its borders, would, most probably, have borrowed their artistic ideas from them. This, however, I am convinced will be found to be a mistake, for there is no feature in the whole history of the Jews, ancient or modern, so remarkable as their persistence in their own singular nationality uninfluenced by those they resided amongst; and it is scarcely probable that they would be much changed by a residence of a couple of centuries as a distinct community in a foreign land, who, for the last eighteen centuries, have preserved their nationality unimpaired, though scattered over the whole globe, and without either a country or any political institutions round which to rally.

It is, however, useless reasoning on probabilities when we have facts, for though it is true that immediately after leaving Egypt they did set up a golden calf—probably Apis—in the desert, this is the only recollection of the land of bondage; and from that period, whatever backslidings they were reproached with, are their tendencies to worship the local divinities of Canaan and Samaria, and not those of Egypt. Nothing, indeed, can be more strikingly distinct than the difference between the Jewish and Egyptian institutions: the former never used a hieroglyphic, either as a letter or as the representation of a thing; and so distinct was their abhorrence of this mode of expression, that the second of their great commandments was directed against it. On the contrary, from the very first we find them an alphabetic people, despising symbolism in all its forms; and their religion, so far from being polytheistic or admitting of animal worship like that of the Egyptians, was the simple and sublime monotheism of the pure Semitic races, from the earliest time to the present day. Indeed, of all the nations of antiquity none appear to me so free from Egyptianism and so little influenced by that people as the Jews; while, on the contrary, there are few things in this temple, and few symbolical expressions in the Bible, more especially in the figurative language of the Prophecies, which may not be explained by a reference to the sculptures of Nineveh or Persepolis, or the general modes of art or expression current on the banks of the Euphrates. Indeed, so distinct does this appear, that I am convinced that as soon as Messrs. Botta and Layard's discoveries are published, all future illustration of the arts of the Jews will be borrowed from them, and the idea of their having taken anything from so dissimilar a race as the Egyptians entirely abandoned.

Even, however, if the Jews had felt inclined to borrow from their eccentric neighbours on the banks of the Nile, their peculiar situation in Canaan and the time that elapsed between the Exode and the building of the temple would have been more than sufficient reasons for their not being able to do it: for, whether that period was three centuries, as I believe it to be, or nearly five as is generally assumed, it is not to be supposed that they could transmit from father to son, through ten or twenty generations, the memory of an art they never practised in Egypt, except as brickmakers, and had no opportunity of either learning or practising during that long period, one half of which was passed in captivity, the other half in struggles with the natives of the land, without their ever being settled in towns or in communities of sufficient importance to require the erection of temples or permanent public buildings. That they were utterly ignorant how to set about building the temple is further proved by David's inability to accomplish this much-desired object, and his being consequently obliged to delegate it to his son Solomon; who, in all probability, would have been as unequal to the task as his father, had it not been for his fortunate alliance with Hiram of Tyre, who did for the Jews what they were incapable of doing for themselves. And as the Jews had no previous temple, and indeed no previous notions of architecture, of course they could give no instruction, nor could they have any prescribed or hallowed form of temple which they could wish either repeated or imitated; so that this one of Jerusalem, whatever it was, can only be looked upon as a Tyrian temple, built after the fashion of those existing among the Phœnicians, and if we had a remnant of their architecture we might safely apply it to the illustration of this one: but even this collateral assistance is denied us.

We are thus left almost entirely to the descriptions of the building contained in the Bible; fortunately they are so detailed that no discrepancy can exist regarding the plan. It consisted of an inner sanctuary twenty cubits or twenty-five feet* in width, height, and breadth, and an apartment in front of this of the same width, but twice as long, and five cubits higher, so as to admit of its being lighted by windows immediately under the roof. Around these, certainly on three sides—I believe on all

* I have used throughout for the old temple the original Jewish cubit of five hand-breadths, and of a cubit and a hand-breadth, or six hand-breadths, for the new, for reasons which I have stated at length in the "Topography of Ancient Jerusalem," p. 18 *et seq.*, and need not therefore repeat here.

four—were what our translation calls three stories of chambers. The word in the Septuagint, *Pleura*, cannot, by any ingenuity, be so translated; but it may mean galleries, which I believe they were, for anything more useless than a series of little rooms six or seven feet square, opening into one another, cannot well be conceived, or anything more unlike what we know of in other temples: but as a three-storied peristyle it might be made

No. 24.
Fig. 2. Section.



Fig. 1. Plan.



Temple at Jerusalem.

quite as ornamental as those with only a single range of pillars of the Greeks, and might serve the same purpose whatever that was. If they were chambers, they were in fact only closed galleries. I have represented them as open ones, and this is not so great a difference as to be important, in plan at least, and so far there are no difficulties that may not easily be explained. When we come, however, to the porch or eastern façade, the difficulties are so great that I question if they will ever be quite explained. The width of the porch was the same as that of the house, or twenty cubits, its depth ten; the height is not given in the Book of Kings, but in Chronicles it is called one hundred and twenty cubits, which we may safely assume to be double what it really was, because the same book makes the height of the two pillars of the porch thirty-five cubits, while the Book of Kings says they were only eighteen, shewing, that the one authority used the whole linear dimensions of the two objects instead of giving the height of each, which may also help us to the fact that there were two towers of sixty cubits each. In its greatest breadth the temple could never, including the chambers, have been more than forty cubits, and to suppose this masked by a wall sixty or a hundred and twenty cubits high, by ten wide, is something so utterly unlike anything we ever knew or heard of, that I think it must be rejected. Even the two towers are somewhat anomalous; and, except among the Etruscans, I do not know where to look for similar erections. There are, however, lofty towers at Palmyra*—Roman and sepulchral, it is true—and they are at all events an intelligible feature, which the lofty façade is not. I think there can be little doubt, both from the passage in the Bible† and the corresponding one in Josephus,‡

* Denham and Wood's "Palmyra," p. 56. Las Cases.

† 2 Kings, vi. 8.

‡ "Wars of the Jews," v. 5.

descriptive of the third temple, that it was in the towers that the stairs were that led up to the galleries.

A still more puzzling matter, however, is the brazen screen that formed the principal ornament of the façade between these two towers, supported by the celebrated pillars, Jachin and Boaz. They certainly were very unlike Egyptian obelisks, both in material, form, and destination, and may be considered as a purely Tyrian feature. Sanchoniathon tells us, *Usous* consecrated two pillars to fire and wind;* and Herodotus mentions two pillars in the temple of Hercules,† at Tyre, one of which was of gold (gilt?), the other of emeralds. Perhaps, however, the best authorities are the coins of the Roman emperors, representing the Tyrian temple at Paphos in Cyprus,‡ which, instead of portraying an edifice of the usual form, have merely a screen of metal or wood, similar to what we may conceive this to be; and the Persepolitan examples explain to us how easily a pillar eighteen cubits high may have a chapter of, at least, five, for their capitals are in height nearly half the shaft.



Coin of Septimius Severus.

From these data it would not be difficult to restore the porch with tolerable correctness; but I must be warned, by the very slight interest evinced for my former attempts to elucidate Jewish antiquities, from riding a favourite hobby to death. I will, therefore, only state here, that the pillars were four cubits in diameter and four cubits apart,§ making up twenty cubits, or the width of the porch; their height was eighteen cubits, and with the epithema, or capitals, twenty-three cubits, and on this was a beam joining them to the porch, which, if two cubits, or two feet six inches in thickness, would make the height of the screen equal to that of the temple. To make room for the net-work and the four hundred bells (another Etruscan or Pelasgic feature) that adorned them, we must expand the capitals till they become almost tees, for I

* Eusebius, "Præp. Evan." i. 10.

† Herodotus, ii. 44.

‡ This coin is even more interesting to the history of art, as representing, with almost minute exactness, the gateway of the Tope at Sanchi, in Central India. (See "Picturesque Illustrations of Indian Architecture," by the Author.) When I

come, in the second part of this work, to speak of Indian architecture, I hope to be able to make the affinities between this and the Indian styles clearer than it has hitherto been suspected of being, in contradistinction to the Egyptian theory which has hitherto been so prevalent.

§ 2 Kings, vii. 19.

cannot otherwise understand what they were ; and I conceive that between the pillars curtains were hung, to support which was probably the principal use of the screen.*

With all this we have only got a building fifty feet in extreme width and one hundred feet in length, forty feet high to the ridge of the roof, and with two towers seventy-five feet in height,—perhaps the smallest national temple ever dedicated to the Deity. Many will, no doubt, be scandalised to find it so small. If scandalised at all, I should be more so to find it so large and made so important, for I cannot but look on the Mosaic dispensation as meaning and intending something higher and purer than mere stone-and-mortar worship ; and I look on the building of the temple as a distinct falling off from the purity of the faith towards the worship of the Gentiles, and that the “lions, oxen, and cherubim,” with which it was adorned, were a positive infraction of the second commandment. It is true they did not fall down and worship these graven images, but the law is positive as to their fabrication, and is so understood, even to this day, by most Mahometans and by many sects of Christians.

PHŒNICIA.

If, therefore, the temple of Solomon was really a Tyrian building, it becomes of the utmost importance to inquire who the Phœnicians that inhabited Tyre really were, and, if possible, what their style of building consequently must have been ; but for this we have even less data than for judging directly from the descriptions of the Jewish temple what the parent style was from which it was derived.

Who were the Phœnicians ? To this question the philologist at once replies,—They were a Semitic race, closely allied to the Jews ; and I admit that in Syria they did speak a language which, if that test were final, would force on us this conclusion. Herodotus† says they came from the borders of the Erythræan sea, but I cannot help thinking that the

* I may observe, that in the above I have followed the Septuagint much more than the Vulgate, as I conceive the Greek architectural terms to be more easily

and more correctly translatable than the Hebrew.

† Herodotus, i. 1.

context proves this to be a mistake for the Euxine, for otherwise it seems impossible to explain why the Greeks should have carried off Medea of Colchos in retaliation for the rape of Io by the Phœnicians. I think, beside, we can trace these people into Lycia and Asia Minor, but not to any place on the Red Sea or Persian Gulf.

What little we know of their history—or rather I should perhaps call it cosmogony—as preserved in the extracts made by Eusebius* from their national historian, Sanchoniathon, shews them to be a people of purely Pelasgic origin without a trace of affinity with the Semitic races. It begins with the Grecian chaos, and, after the deified elements, goes on through Misor and Taautus of Egypt, and through his brother Syndic to the Dioscuri or Samothraces, and thence on from Ouranos and Ge to Chronos and Athenæ; and through names scarce one of which is found either in the Bible or the book of Berosus: in short, such a history as would seem to suit Athens as well, if not better, than Tyre. They had no tradition even of the deluge, which forms so important an epoch in the Semitic cosmogony, nor of the Garden of Eden, nor the antediluvian patriarchs that intervened between these two events. From their earliest ages they seem to have worshipped deified elements, and deified men, and demigods, and to have had no notion of the one great God of the Semitic races.

At Tyre the priests told Herodotus that the foundation of the temple of Hercules there had been laid at the time the city was founded, 2300 years before his time;† and Hercules seems always to have been the favourite god, or hero, of the Tyrians, while his name is not known to any Semitic race: but wherever the Pelasgi existed, there we find Hercules and his labours in almost every tradition, and repeated in every conceivable form of art and utterance.

Had we one single authentic building of the ancient Phœnicians, the question would be easily settled, for then we should at once see whence they came and who their kindred were; but none such, so far as I am aware, exist, nor do I think it likely they will now be found in the neighbourhood of Tyre or Sidon, or, indeed, in Palestine: that country has been too thoroughly explored to admit of the hope of much being left there undiscovered, but the reward is so great that a further search might be worth while. There is more hope, however, from Carthage; and now

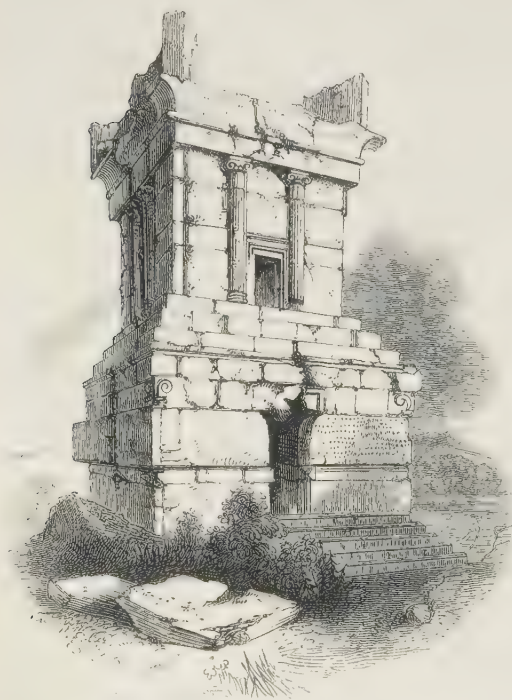
* Eusebius, "Præp. Evan." i. 10.

† Herodotus, ii. 44

that a civilised people are settled in Africa, and have access to Tunis and its neighbourhood, we may hope for some new light being thrown on the subject: not perhaps from the ruins of Carthage itself, its neighbourhood has been too long inhabited by barbarous races, since its destruction, for us to hope that much, if any thing, can be left; but I shall be much surprised, as well as disappointed, if tumuli, similar to those of Etruria, are not discovered in the interior—perhaps also rock-cut tombs. Temples, I fear, they never had of sufficient size or importance to have resisted so long the decay of ages,—no Pelasgic race had; but their tombs must remain, and, if found, they are too peculiar in every respect not to settle the question at once.

Though not strictly belonging to this part of the subject, chronologically at least, I cannot resist the temptation of introducing here the

No. 26.



Tomb of Ataban, at Dugga.

representation of a monument found at Dugga, in the beylic of Tunis,* which carries as much ethnography in its style as almost any building I know. The principal order is the Ionic of the Pelasgic races, but used as that order could only be used in Africa, for the entablature is purely Egyptian; and above it is—or rather was—a graduated pyramid, of which nothing remains but “the headstones of the corners,”—an expression this building explains better than any other I know. The one point I can scarcely explain is the

upright jambs to the doors; as a Pelasgic or Ionic building, they ought to have sloped inwards, but the builders may have borrowed this pecu-

* From a drawing by Mr. Catherwood, published in the “Transactions of the American Ethnological Society,” vol. i.

liarity, with the entablature, from Egypt. In general form, and in the disposition of its twelve columns, it is very similar to a tomb at Mylassa, in Asia Minor (quoted further on, woodcut 35), to two in the Valley of Jehoshaphat at Jerusalem, and to a great number of Moslem tombs in India; but, at the same time, it would be difficult to find a building that more clearly expressed my idea of the Phœnicians, viz. Pelasgic overlaid with Semiticism, but without a trace of Indo-Germanic race or feeling, and, as the monument plainly shews in this instance, existing in Africa.

The date, unfortunately, is not known, and cannot be guessed at with anything like certainty without more detailed drawings than have yet been published; the inscription, which is bilingual, in Phœnician and Libyan, only mentions that it is the tomb of Ataban, the son of Jophmathal, the son of Faloo. It cannot, however, be far from the year 400 B.C., but it is, probably, more modern rather than more ancient.

It is not, however, from structural monuments of this class that the ethnography of this race can be finally determined: they are from their nature too modern for this purpose, and it will only be when some tumuli are discovered, or something more authentically ancient, that the question can be answered. But the Phœnicians were so eminently a commercial and utilitarian people, and had so little that was monumental in their nature and aspirations, that I fear there are few chapters in the history of art that present such scanty materials for its elaboration as this one does, though there are, at the same time, few that would be more interesting if they could be properly and fully written out. Not, of course, merely for the sake of discovering the form of Solomon's temple, nor, indeed, any thing regarding the external forms of art,—that, we can discover from other sources with quite sufficient distinctness to enable us to dispense with this collateral aid,—but because they were the people who first introduced into Europe two of the most important inventions of that or any other age, viz. the art of navigation and the alphabet. The former of which, after the primary processes of agriculture, has certainly been, of all the useful arts, the one most instrumental in advancing civilisation, and extending the advantage of it most among mankind; while the latter revolutionised the arts of Greece, and gave them that form which distinguished them so completely from those of Egypt, and even enabled them to advance so far beyond any thing that had been done, or could be attempted with the less perfect alphabetic system of the Assyrians. There

are thus few subjects connected with the history of art which become more important or more interesting than the inquiry as to who these Phœnicians really were, and where they learned that alphabet which they introduced into Greece; assuming, as is generally done, that they did introduce it into that country, though to my mind this is by no means so clear. Be this, however, as it may, it is quite certain that neither they nor the Greeks got it from the banks of the Nile, where hieroglyphics, or contracted forms of them, were the only letters employed for a very long time after the short alphabet was currently used in Syria; nor could it have come from the banks of the Euphrates, whose clumsy, arrow-headed alphabet, extending to two or three hundred characters, at least, and possibly, therefore, to some extent syllabic like the Chinese, or symbolical like the Egyptian, was used almost down to the time of the Persians; whereas we know that the Phœnicians and Jews, and probably the Etruscans, used the short alphabet as early as the fifteenth century before Christ, and that so currently that none of these nations either lay claim to, or have even a tradition regarding, its invention. As far as I can form an opinion on this most mysterious subject, it appears that the short alphabet which we now know as the Hebrew was the invention of that race I call Pelasgic, and is found wherever they are found, and was left as an inheritance by them wherever they had ceased to exist. If the Phœnicians were originally of this race, they may have brought it into Syria, and the Jews found it there, and used it in preference to either the Egyptian or Chaldæan mode of writing, which, were we to follow the usual tradition of their race, we should be more inclined to believe they would adopt than this.

On the other hand, the Indo-Germanic race seem at the same time to have used a long alphabet, differently arranged from this one, and so unlike the other—at least, externally—that it is difficult to say whether they are two separate and distinct inventions, or merely modifications of the same one, altered to suit the peculiar character of the language it was used to express.

The Greeks, till the return of the Heraclidæ, were essentially Pelasgic, and of course used the short alphabet, but whether derived from the Phœnician or some other Pelasgic source is by no means clear; when, however, they became Hellenised, various changes were introduced, the most characteristic being their reversing the order of their writing, which, with the pure Pelasgic, was from right to left, while the Sanscrit was

generally written from left to right. At first they compromised the matter, by writing the lines alternately—in Boustrophedon—thus combining the two, but as the Indo-Germanic element prevailed, their mode of arranging the letters gradually superseded the other, which eventually went entirely out of fashion. The next was borrowing two long vowels, *eta* and *omega*,* from the other alphabet, and, finding this sufficient, they seem to have let the matter rest there; though it is much to be regretted that the Dorians were not sufficiently cultivated, as a nation, at the time they superseded the Pelasgi in Greece, to have introduced their long alphabet with them, instead of merely improving the one they found there, as it would have been of the utmost use to us in expressing quantities and sounds, which now are left entirely to habit or vocal tradition.

The subject will, however, require infinitely more attention than has hitherto been bestowed upon it, before we are able to arrive at any very positive conclusion regarding the affiliations of these alphabets; and I question much if ever we shall be able to mount so high as to be certain whether the two ever were originally only one, and altered and improved so as to suit the languages they were used to express: but, whether we can do this or not, the subject is one of extreme interest to the ethnologist, and, combined with language and art, would serve to unravel many of the problems that now perplex us in trying to fathom the depths of these dark ages.

* The *theta* seems also to have been borrowed from the long alphabet, at least in the oldest form of it T is written C, *th* O when hard, and Θ expresses the soft *th*, or *theta*, all which is intelligible, and follows naturally; but the idea of making *th* by putting a dot into the vowel *o* is so absurd as to be almost impossible.

SECTION III.

ASIA MINOR.

No. 27.



Colossi at Branchidae.*

OF all the countries of the ancient world there is none of whose early history we know so little as Asia Minor, and none in which that little is so inextricably, and apparently hopelessly perplexed ; nor can I see where there exists any clue which may serve to guide us through the labyrinth. Of all countries it seems almost the only one which never had a distinct nationality, or an individual physiognomy which would enable us to recognise its features, and separate its people and its arts from those of surrounding nations. Yet no country in the world appears more fitted for the residence of a great and distinct race than this ; bounded on three sides by three seas, and on the fourth abutting on the most fertile, and at an early period the most populous, part of Asia ; possessing on its coasts a range of the best natural harbours in the world, and its interior occupied by fertile and well-watered valleys, inter-

* From the Ionian antiquities of the Dilettanti Society, vol. i.

sected by well-wooded hills, and enjoying one of the best climates in the world. No country appears, physically or geographically, better suited to become the seat of a great nation, and the centre of the world, than this peninsula; yet we look in vain among the traditions of the ancient world for any symptom of this having been the case. At the time we know it best, or about the age of the Persian invasion, and for some centuries afterwards, we find, it is true, its shores covered by populous cities, unrivalled for wealth and splendour by any others of that day, and the whole country populous and well cultivated. But who were its inhabitants? On the north-east, in Colchos, a colony of Egyptians; next to them, in Pterium, a colony of Scythians; in the centre, in Phrygia, a race from Macedonia, or Thessaly; the western shores inhabited by Ionian or Dorian Greeks; in Lycia first a Cretan, then an Athenian colony, superimposed on a Phœnician race; and, lastly, a Persian race of conquerors superseding all those. In Lydia, it is true, we have something like an aboriginal race, but governed by a family descended from Agron, the son of Ninus, king of Nineveh. Here, instead of one great race, which the form and position of the country would lead us to expect, we have, at least, eight or ten different people, speaking different languages and practising different arts, and, what is more singular still, all acknowledging themselves to be foreigners, and none pretending to anything like the antiquity we find claimed by all surrounding nations. If we turn to the banks of the Nile, the Euphrates, or the Ganges, and even in the neighbouring countries of Syria and Greece, we are bewildered by long lists of kings, that pass like shadows before our eyes, till, magnified by the mists of distance, they fade into giants and demi-gods, and vanish at last, leaving us puzzled to know whether we should not reject the whole as a fable, or whether these may not be reflections, at least, of substantial forms. Nothing, however, of that sort occurs in this country; the Egyptian conquest cuts across our vision like a wall beyond which nothing is visible, and beyond which we in vain attempt to penetrate. But even this is not our great difficulty; for much, very much, remains still to be done before we can construct an ethnographical map of this country, even as it was in the time of Herodotus, and distinguish exactly between the races that then occupied it, and the boundaries to which each race or language extended. A good deal has been done lately by the discoveries of Sir Charles Fellows and his followers, and more still by the explorations of the Baron Texier, which

have thrown new light on the subject, and altered entirely the hitherto received views of the case. A few years of well-directed industry would now, probably, settle the most important questions connected with it; for the materials do, I believe, exist. There is still a sufficient number of monuments remaining in the country to explain its history, and it is to these alone that we can look when both history and philology have proved insufficient. When the problem is solved, it will throw more light on the ethnography of the ancient world than any thing that has yet been done.

Till this is done it will be impossible to form correct or positive views on so complicated a subject; but it may assist in making intelligible what follows on the ethnography of art if I state here, as succinctly as possible, what are the clearest views I can form from the means at my command on this subject. My belief is that Asia Minor was, in very ancient times, the seat of that race which we know in Greece as the Pelasgi, in Italy as the Etruscans, of whom the Phœnicians probably were a branch, and who, either under that name or their own, possessed colonies in France, in Spain, and probably even in Britain.

As early as the eighteenth century before Christ they were conquered by the Egyptian kings of the eighteenth dynasty, and continued under their dominion for nearly four centuries,—a length of foreign domination that so completely broke up their institutions and destroyed their nationality, that when, under the weak kings of the nineteenth dynasty (about 1400 years B.C.), the Egyptians were forced to abandon their foreign conquests, they were unable to reorganise themselves in their native land; and that tide of emigration, which had in former days flowed from their shores, ebbed back on them to fill up the vacuum left by the retirement of the Egyptians, bringing with it all those various nations and races enumerated above. Even after this event, however, the unfortunate aborigines, who, throughout this work, I have called Pelasgi, pressed by the Indo-Germanic races on the one hand, and the Assyrians on the other, were still forced to seek a home in the countries they had formerly colonised of their own free will; and it was under these circumstances that the Pelopidæ sought Greece, the Tyrrhenians Italy, and lastly, when Troy was destroyed by the Greeks, the unfortunate Trojans, under Eneas, sought among their countrymen in Italy the refuge their own shores refused to that doomed race.

Whether they inhabited the whole peninsula, or merely the western and

central parts, are questions that can only be answered by further investigations. In the present state of the inquiry it is scarcely important to know which.

The fact of the Egyptian conquest we know from Tacitus, and various passages in the Roman and Greek authorities, but more certainly from the irrefragable testimony of the monuments of Egypt, where we find portrayed, certainly as early at least as the third Thothmes, Asiatic races—the Kufa, Roteno, and Pount,*—bringing, not presents, but substantial tribute, to the Egyptian conqueror. It will require further investigation before the exact names and localities of the conquered people are definitely settled; but I see no reason to dissent from Champollion and Wilkinson in assigning Asia Minor as certainly the seat of the tribes above named. The first, probably inhabiting Lycia and the southern shores; the second, more to the north; the third, Armenia and the eastern part. Champollion identifies the Roteno with the Lydians, in which perhaps he is right, though there are scarcely sufficient grounds yet for great exactness in this matter. Of these races the Kufa seems to have been the richest and most civilised. The tribute they bring consists almost entirely of gold and silver vases, almost identical in form and appearance (except in the absence of human figures on them) with those now found in Greece and Etruria; the materials, however, of which the vases were made, instead of being clay, to which in those poorer countries the artist was obliged to resort, the wealth of the richer inhabitants of the banks of the golden Pactolus enabled them to supply by the precious metals.

The Roteno bring also vases exactly similar to those of the Kufa, but not to the same extent as their southern neighbours, and they make up their quota of tribute with horses, chariots, and the produce of the chase. Of course the Egyptian monuments give us no further information as to their history, or regarding their local arts, such as agriculture or architecture, but they shew quite sufficient to prove that seventeen centuries before Christ they were a highly civilised people, working the precious metals with a degree of perfection, both as to skill and taste, which was not surpassed by Greece or Etruria in their best days, and that they knew how to weave cloths of fine texture and beautiful colours.

* The painting on the tomb at Quor-nah, which represents the three nations bringing tribute to Thothmes III., is to be found in almost every work on Egyptian

antiquities. The figures were first copied by Belzoni; it was again published by Hoskins; it is in Wilkinson's work, and in those of Champollion and Rosellini, of course.

The facts gleaned from this source are meagre it must be confessed, and likely to remain so, but still they are sufficient to prove the existence of a highly-civilised race in Asia Minor at the time we are speaking of, for it is quite evident that no race could have acquired the art of textile manufacture, and of working the precious metals with the degree of perfection and to the extent to which they did, without being long settled in cities under regular governments and institutions. Indeed, their whole appearance on the monuments is such, that one is inclined to believe that, even without the foolish experiment of Psammeticus,* the Egyptians might well have doubted whether they or the Phrygians were the oldest people. The result of my own researches would lead me to the belief that the race which I have called Pelasgi were the oldest of whom we have any trace, and that their original country was this one of Asia Minor. Had the Egyptians left a single monument, or rather, perhaps I should say, had their successors allowed one of their monuments to remain in the conquered provinces, it would have done more than anything else to clear up these difficulties, but I do not know of anything Egyptian to the north of the Nahr el Kalb. At Branchidæ there is, however, a range of colossi in the Via Sacra, three of which are given in the woodcut at the head of the section (No. 27), which, though dating, if we may trust their inscriptions, from the eightieth Olympiad, and, consequently, Grecian in form, yet they are so essentially Egyptian in spirit, that to me they tell most distinctly of an Egyptian occupation even at that distance of time, and shew how rooted her arts had become in the country, that her feelings should come to the surface again after so long a time of abeyance. To me they seem to tell the tale more clearly than a purely Egyptian colossus itself would do: that might be imported, these must have been made there.

It will require further research before it can be proved whether or not these views of the ancient history of this country are correct or not; but of one thing I feel assured, that no one can have looked into the history of art in those early times without feeling everywhere the presence of a people whose language he did not know, and whose arts he could not trace to their source: everywhere they are present, but hitherto they have eluded the vision of the keenest inquirers. If they were not what I have represented them to be, my knowledge and my science are at fault; but

* Herodotus, ii. 2.

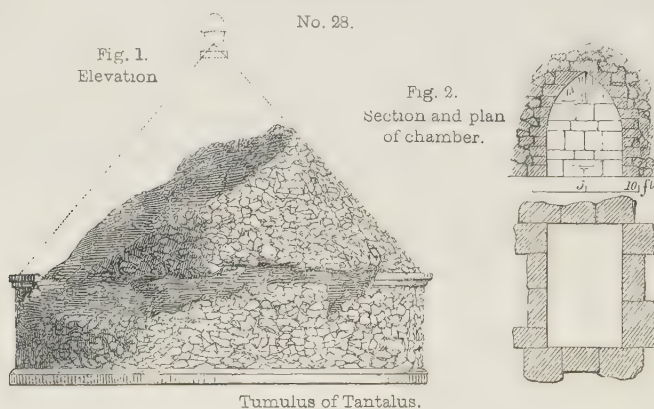
the more I think on the subject, and the more I inquire, the more do I feel convinced, that what I have above stated is at least substantially correct, and contains the solution of this antiquarian riddle.

TUMULI.

The great Ionic temples and theatres of the Grecian cities of Asia Minor belong, strictly speaking, to the history of Grecian art, and cannot be treated of separately from those of Greece itself, any more than the ruins of Baalbec or Palmyra can be considered as Syrian and not as Roman edifices, or at least as Roman translations of Syrian edifices, which in fact they are. Of original monuments we have only sepulchres, and these of only three or four distinct classes,—the tumuli of the banks of the Hermus, the monuments of the Midian kings at Doganlu, the Lycian rock-cut sepulchres, to which, perhaps, should be added, the Scythian sculptures at Pterium. Of these, the first are historically the most interesting, as being most clearly cognate monuments with the so-called Treasuries at Mycenæ, and the innumerable tumuli found all over Etruria; of them the most famous was that of Alyattes, the father of Cræsus, which is thus described by Herodotus.* He says, “Lydia boasts, however, of one monument of art second to none but those of the Egyptians and Babylonians,” (thus confining his comparison to monuments of the same class). “The groundwork is composed of immense stones, the rest of the structure is a huge mound of earth On the summit of this monument there remained within my memory five termini The circumference of the tomb, of 6 stadia 2 plethra (or 38 plethra), the diameter 13 plethra, or 1300 feet.” The remains of this immense mound still exist near Sardis, and if it has not already been rifled, I know of no monument of antiquity that promises so rich a harvest of treasure or of historical information as this. It is larger than any of those in Europe; but its five termini or steles point at once to the tomb called that of Aruns at Toscanella, or the Cocumella at Vulci, or the more famous tomb of Porsenna at Clusium; perhaps, also, to the Nurhags of Sardinia: of all which further on. I cannot, besides, help thinking that it may throw light on

the recent discoveries of Messrs. Botta and Layard* in the neighbourhood of Nineveh, for if the monuments they have discovered were not sepulchral tumuli, it is not easy to say what they were. Besides this great one, there are many other smaller ones in its neighbourhood, which are hitherto not only unexplored, but almost undescribed.

Another group of these tumuli has recently been brought to the knowledge of the European public, as existing near the mouth of the Hermus, under Mount Syphilus, on the north side of the Gulf of Smyrna. The annexed elevation of one, and section of its chamber, vaulted by a pointed horizontal arch, would be as appropriate in the necropolis of Tarquinia as in the neighbourhood of Smyrna; and proves as clearly as anything can prove, that the same people who erected the one also erected the other.† They are further interesting as found here, as this is the very spot from which the famished Lydians are said to have embarked on their expedition to colonise Etruria, and to cover it with their tombs.



Judging from the map in Baron Texier's work, there are many others in the same neighbourhood, and, indeed, the country must be full of them: but those that were of earth are easily crumbled down, and their bases hid so that they are scarcely discernible; and those of stone, like this one, are too tempting quarries for the villagers in the neighbourhood to escape destruction.

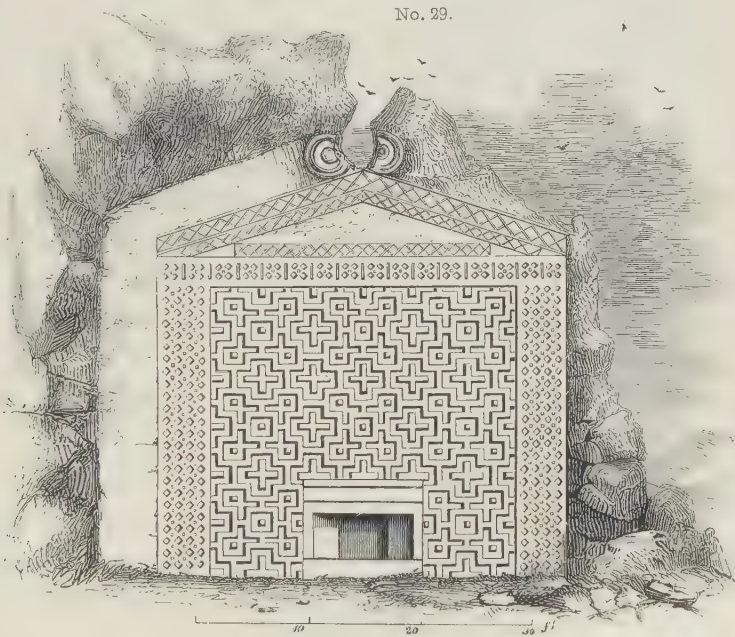
* Does not M. Botta's Plate XXIX. in the "Journal Asiatique," represent a tumulus with its five steles? It would require a more detailed drawing, or an inspection of the slab, to make this quite clear; but it looks at least very like it, and if the drawing is to be depended upon, I have no doubt it is so.

† In Baron Texier's work it is called Tomb of Tantalus, or the Necropolis of Tantalus: with what correctness the text will shew when published. I think there is little doubt about its being of that age, and of that people, but I fear it will be impossible to fix exactly the date and author of the monument.

The masonry of this specimen is singular, and, so far as I know, unique : at first sight it looks Cyclopean, but the stones are too small for it to merit that appellation, and it is intermixed with mouldings of regular masonry, which never occur in their rude works ; the peculiarity of its construction, apparently, being only economy, arising from materials for this sort of rubble-work existing in the immediate neighbourhood.

DOGANLU.

The next class of monuments is of a far more puzzling nature, nor can I offer even a plausible conjecture as to the purpose for which they were executed. They exist in the vale of Doganlu, near Nicoleia, and the ancient capital of the Phrygian kings ; the principal one is represented in the annexed woodcut.* On the rock near it, but not on the monument itself, are two inscriptions in archaic Greek characters, which seem to say that it was dedicated to, or by, King Midas.



Frontispiece at Doganlu.

Another one at no great distance from this is similar, but smaller ; the centre is quite plain, and there is no niche at the bottom as in this

* First discovered and published by Col. Leake in his "Asia Minor," p. 26. | The woodcut is taken from Baron Texier's work.

larger one. On it is an inscription in the same characters, but written in the Boustrophedon manner, and even less intelligible Greek than the last, though the import seems to be the same; the third is very like the last, plain in the centre, and with no inscription. There may be more in this neighbourhood, but they have either escaped observation, or at all events have not been published.

Usually these monuments, or frontispieces, are called tombs, but, I think, without sufficient reason: it is true there is a niche at the base of the one here represented, but it is wide and shallow, and more suited for the reception of an altar than of a body; and in the other two there is no trace of any excavation being made or intended, and in a rock it is impossible to conceal an opening once made.

Were they tombs, the presumption is that the inscriptions would form an integral and principal part of the design; they, however, are not on them, but on the rock close by. Another reason is that, if we may trust Herodotus or the language of the inscriptions, they are the work of an Indo-Germanic race from Thessaly, and as such, it is very improbable they would execute such works as tombs, unless such was the usual and established custom of the country around them; but there are no older monuments in the neighbourhood to countenance such an idea. What, then, were they? In the smaller ones the plain centre seems to have been prepared for painting, but of what nature it is difficult to guess; indeed, in the whole range of art, I know of no monuments that stand so utterly alone, and are so unique as these, and consequently so difficult of explanation, and we must wait for further discoveries or elucidations before attempting it. In the meantime, they are interesting as shewing a new form of art, and in one respect may be useful, inasmuch as on the chariots and armour of the warriors represented as fighting on the sculptures of the monument discovered by M. Botta at Nineveh, we find the same fret as is represented on this façade, and it is the only other instance, so far as I know, in which it is found: it would be stretching the point too far to assume identity from this, but such hints often point out the direction in which to proceed.

Another peculiarity of these frontispieces deserves, perhaps, to be pointed out, which is, the pediments that crown them being the earliest specimens of that form of roof or termination with which we are acquainted; and if they date between 1000 and 700 years before Christ (for we must take that wide range), they may possibly be the earliest existing. It became afterwards a typical form in Greece, but is not found either in Egypt or in Asia before the time of the Greeks.

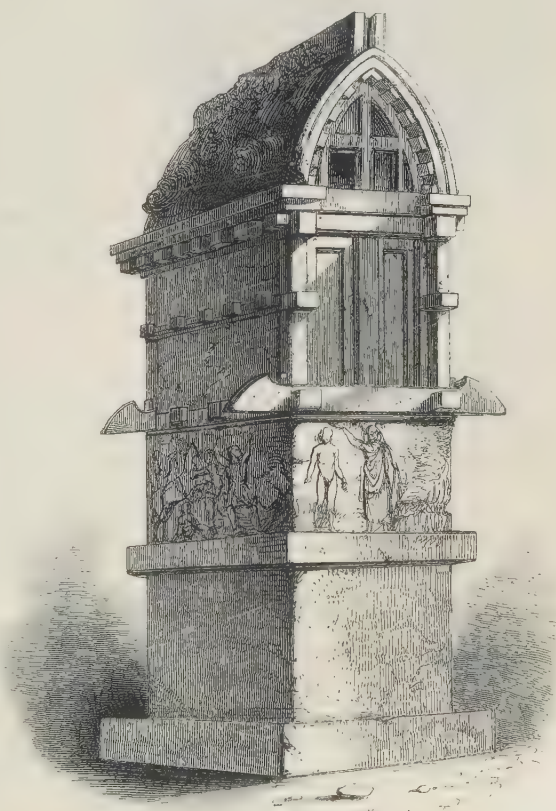
LYCIA.

It is only within the last few years that the class of monuments peculiar to the province of Lycia has become at all known to the European public. Sir Charles Fellows first fairly attracted attention to them; but before he visited that country they had been more carefully examined and drawn by the Baron Texier: we still wait, however, for the complete publication of his work before entirely satisfactory conclusions can be drawn from it.

As specimens of a high class of art, or as models for imitation, these discoveries have added but little, if anything, to our previous store; but no new form of art can be brought before the intelligent inquirer without adding something to his knowledge of the subject, and teaching him some useful lesson by which he may profit; and, more than this, no new link can be added to the detached fragments of the history of art without opening a hope that we may one day complete the whole chain in all its integrity, and understand the history of all, and of those people and nations whose voice and only utterance it was.

The only monuments hitherto discovered in this province, which are peculiar to it, are tombs, sometimes structural but more generally cut in the rock, and these generally of four forms. The first, that of an oblong chest, or house, surmounted by a curvilinear

No. 30.



Lycian Tomb

hog-backed roof, with a ridge upon it, at each end presenting a gable of something like a pointed arch form. This form is more generally found structural than cut in the rock, and two specimens of the former class are now in the British Museum, from the most perfect of which the woodcut on the preceding page (No. 30) is taken, and, judging from the representations that have been published, it is not only in its form but in its details as

No. 31.



Rock-cut Tomb, in Lycia.

perfect a specimen as any that are now found in that country. No. 31* is a rock-cut specimen of the same class of tombs, one of the few that exist, as this is by far the rarest form of a tomb in the rock in that country: but it is singularly interesting to the antiquary, from its striking similarity with a certain class of caves of India, which it resembles so much at first sight, that one would be inclined to jump to the conclusion that they were similar edifices and excavated for similar purposes. This, however, is a tomb, and there are no rock-cut tombs to the eastward of the Indus, and the caves which this most resembles are all ceremonial temples, of which there is no trace of any rock-cut specimen existing, either

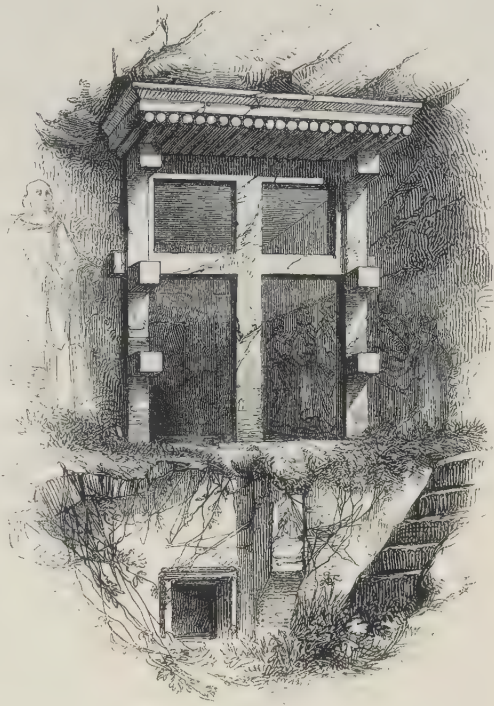
in Lycia, or indeed in any country along the shores of the Mediterranean: but of this further on.

Another class of these rock-cut tombs, called by Sir Charles Fellows Elizabethan, are very similar in design to these ones, so far as the sarcophagus, or rectangular part of the tomb, is concerned; but either because they were generally cut in the rock, or because the flat roof was commoner than the curvilinear one, they are generally finished with a

* From Messrs. Spiatt and Forbes' "Travels in Lycia."

roof which is almost an exact copy of those common in the country even to this day (No. 32*), consisting of rafters of round poles, arranged side by side as close as they can be laid, and on them a terrace-roof of mud or concrete of some sort; during the Greek period, they added to this their favourite pediment, frequently without altering the Lycian form of the substructure, which retains its carpentry construction (No. 33†) though the pediment placed over them suggests at once the idea of a masonry structure, which the tomb evidently was becoming; and had at that time probably been so often repeated in stone, or rather in the rock, that the incongruity

No. 32.



No. 33.



did not immediately strike those who designed it.

The next step, however, cut the difficulty, by substituting the masonry forms of the Greeks at once for the carpentry forms of the Lycians, and the façade of the tomb became at once the portico of a small Ionic temple (as shewn in No. 34‡), which is altogether a far more elegant and appropriate piece of architecture than any of

* From Sir Charles Fellows' "Lycia."

† From Baron Texier's work on Asia Minor.

‡ Ibid.

the older and purely original forms of these tombs, though in the forms

No. 34.



of its columns and the size of its mutules it still retains a sort of reminiscence of its wooden prototypes, at least to a greater extent than is found in any of the structural temples of the Greeks of that age.

No one looking at these singular structures can for one moment hesitate in perceiving that they are copies of a peculiar form of hut, or store-house, still found in that country, an analogy which has been well pointed out by Sir Charles Fellows and others; and in this respect, if in no other, they are curious and interesting: for they are not, like the

Doric or Ionic entablatures, modified and adapted constructions, but literal petrifications of their wooden prototypes, retaining all the forms and joints of wooden buildings, not even omitting the trenails and mortices with which the wood was fastened.

From this one would, at first sight, be inclined to believe that they were very old, and executed when art was in its infancy, before stone architecture had acquired a consistence and form of its own; but, so far as the inscriptions and other historical evidence go, we are startled by the fact that they are all subsequent to the Persian conquest of the province by Harpagus, the general of Cyrus; and so complete is the evidence on which this assumption rests, that, till some new facts are brought to light, we must be content to assume that at least all the finest and best monuments of this class extend from the Persian conquest to the Roman era, and that down to even the last period the purely wooden forms were in some instances retained, though often the Greek influence caused them to be somewhat modified.*

The result of the investigations into these inscriptions has led some to jump rather too hastily to the conclusion that this form of architecture

* On this subject see Appendix B in Sir Charles Fellows' "Second Journey into Lycia," where the fullest and best account

of the language is given by M. D. Sharpe. See also Spratt and Forbes' "Travels in Lycia," vol. ii. p. 37 *et seq.*

was introduced into the province by the Persians,—a conclusion which, I am convinced, further investigations will induce them to modify: for, in the first place, the Persians could not import what they did not possess, and as they did not use this form of architecture in their own country, they could not bring it into this; and though rock-cut sepulchres are found in Persia, it would be far more logical to assume that the half-dozen monuments of this sort found in that country were copies from this, than that the ten thousand specimens of the class that exist all along the eastern coasts of the Mediterranean, from Petra to Lycia, were copied from them. Indeed, the fashion of rock-cut sepulchres seems to have been indigenous in these countries, from at least the time when Abraham so used the cave of Machpelah down to the Christian era, and is only found as a generally prevalent form of sepulture in Syria and Asia Minor, and their colony Etruria. It may have been derived from Egypt, where it was practised long before this period, but of this there is no proof either historically or in the forms or style of the tombs themselves.

To me the most unaccountable fact with regard to these structures is, that in none of them do we find a trace of a native indigenous style of stone architecture. In Petra, for instance, all the tombs are of Roman date—Roman in style; yet no one will assert that the Romans introduced what they never practised at home, and which was a thing quite foreign to their forms and institutions. Here we find the Lycians, immediately after the Persian conquest, copying wooden forms, as if no stone or rock-cut building had ever existed in their country before, and as if the Persians had for the first time put it into their heads that stone could be used for this purpose. Perhaps the solution of the riddle will be found in the fact, that those who have hitherto examined that country have been attracted only by the most splendid and best-preserved specimens, and those whose inscriptions promised some useful information as to their dates or history; and that any one who should now go there, having thoroughly mastered all the gradations of style from the Roman period to the Persian conquest, might carry the series beyond that date, among the plainer sepulchres without inscriptions, which the older ones must have been. Or, perhaps, it may have arisen from some peculiarity in the Lycian mode of sepulture; that they were in the habit of placing their dead in wooden sarcophagi similar to those we now find imitated in the rock, and that these were placed on the ground in these necropoleis, or exposed on the rocks round their cities, and that the only change that

took place when they came in contact with nations more accustomed to cut and quarry stone, was to repeat their accustomed form in a different material. We, of course, could not now look for any trace of their wooden erections, and we have no travels in these countries before the Persian period; and as, indeed, we have none after that time which mention the rock-cut sepulchres, we should not be surprised that no one mentions the wooden ones.

One thing, at all events, appears to me tolerably evident, which is, that had the Romans introduced the fashion of rock-cut tombs into Petra, they surely would also have introduced them elsewhere. In like manner had the Persians introduced them into Lycia, they would have done so also in Lydia or Phrygia, and we should have found specimens of some sort nearer home—in Armenia, or at Ecbatana and Behistun: nothing, however, of the kind exists; I think, therefore, we must admit that the practice, as well as the form of these singular sepulchres, is purely Lycian.

As works of art I cannot see much beauty in them, and as stone edifices they are decidedly incongruous: they have not that exquisite finish and elegance of detail that redeems any form in Greek architecture, but, nevertheless, they possess a certain local character, and consequent appropriateness, which always pleases; and there is an honesty of purpose and well-understood intention about them which at once satisfies the mind, both as to their meaning and the intention of the architect. It is still an unsolved problem to ascertain how any man can cut either stone or wood into any form which shall be unpleasing, when he honestly sets about doing the best he can with the best materials at his command, and with a well-defined aim,—as unsolved as the other problem, at which all Europe has been working for the last century or two, and which consists in the attempt to produce something that is pleasing by the opposite course, which, notwithstanding the ability bestowed upon it, has not yet been accomplished, nor do I believe ever will.

To my mind, one of the principal points of interest connected with these Lycian buildings is their similarity, as hinted above, to some of the forms of Indian art, and the opportunities they thus, perhaps, afford us of tracing a connexion between the arts of the far east and those of the western nations. Much, of course, yet remains to be done before anything like a satisfactory argument can be elaborated out of the materials; but if this fail us here, I do not know where to look for any connecting link. As I said above, if there is any connexion between the arts of Egypt and India,

it must be between the Tamul races of the south of that peninsula and the Nubian, or at least the inhabitants of the upper part of the valley of the Nile, and I feel perfectly certain that there is not a trace of any connexion between the Egyptian arts and those of any of the ancient races inhabiting the northern parts of India.

Here, however, in so far at least as the hog-backed tombs are concerned, such, for instance, as those represented in woodcuts 30 and 31, there does exist a similarity that is too peculiar and too strongly marked to be accidental.

In the first place, the curvilinear form of roof that covers them has not been traced to any similar form among the cottages or wooden buildings of the country, and there is nothing to shew that it is in any respect an indigenous form. At the same time, few perhaps are aware how rare a curved form of roof is in architecture; it does not exist in Egyptian art, nor in Grecian, nor in Gothic, and in Roman it is only found in circular buildings, and even there is rarer than is generally supposed, for many buildings whose ruins now shew externally that form were originally covered with wooden or stone straight-lined roofs. Besides this, these hog-backed tombs are rarely cut in the rock, generally they are built and stand alone; and this, coupled by their not being traced to any indigenous form, makes it, at all events *primâ facie*, probable, that if any thing was imported from Persia it was this.

On the other hand, it is not a little singular that all the older Buddhist Chaitya caves in India have curvilinear roofs, copied from wooden buildings, exactly as these tombs have. It is true, that from these being all caves, we in no instance can tell exactly what their external forms were, nor by what kind of ridge they were surmounted; but if any one will compare the woodcut p. 13, and Plates VI., X., XI. of my work on the rock-cut temples of India, he must, I think, perceive, that it must have been something very similar to this; and if he compare the two oblong buildings in Plate XVIII. of that work, and the building, Plate IV. of the "Illustrations of Indian Architecture," he will see external roofs, at least somewhat similar, but they are both unfortunately very modern examples, and considerable deviations had taken place in the meantime.*

* Unfortunately while in India I was, of course, quite ignorant of the existence of these Lycian monuments, and consequently did not look out for synonymes; but I can recollect many—particularly one in the fort of Gwalior—which would be better illustrations of the fact than those I have brought forward.

One circumstance is at all events curious, which is, that those Indian rock-cut buildings—the oldest, at least—are, as nearly as possible, contemporary with these Lycian tombs, and that they are copies of wooden buildings, just as far removed from their originals as these are, for they retain all the original wooden forms in a manner not to be mistaken. The later caves, of course, adopted forms more appropriate to stone or cave architecture, but their age may almost certainly be predicated from their greater or less resemblance to petrified carpentry. Besides this, in instituting a comparison of this sort, it must always be borne in mind, that the only Lycian monuments we know in this form are tombs; in India they are all either temples or churches, and we must in consequence make great allowance for the difference of size and destination.

There is one circumstance connected with these Lycian monuments which, if proved, would render it more than probable that this similarity is not accidental, but, on the contrary, such as we should be led by sound architectural criticism to expect, even *à priori*; which is, that the inscriptions on them seem to be, so far as can be made out, in languages extremely similar. Those in Lycia, in a dialect of old Persian or Zend; those in India, in Pali or Magadhi, the one being a western, the other an eastern dialect of Sanscrit, differing of course from each other, but standing in nearly the same relation to the parent tongue, quite sufficiently so to shew that two or three centuries before Christ the same race extended from the shores of the Mediterranean to the Bay of Bengal; and when we have sufficiently explored the intermediate country from which the two branches flowed, we may understand what has hitherto been so perplexed and dark.

The alphabet in which the Lycian inscriptions are written is not, it is true, the same as that used in India; but the difference is not difficult to account for. For it appears that the Persians must have been a singularly illiterate people, and as I suggested above, when they conquered Mesopotamia they seem to have formed an alphabet for themselves out of the Chaldean arrow-heads,—in which all their inscriptions are written,—though there can be little or no doubt but that the Sanscrit alphabet did exist in India, where their Vedas and other sacred books were written with it long before that period. Its form was probably very much the same as is found on Asokas laths 250 years B.C. Here they adopted at once the short Pelasgic alphabet as they found it, merely adding such long and short vowels as were absolutely indispensable to express their tongue.

Another circumstance, which, though not quite so direct a proof, adds something to the probability of this view of the case, is, that in the neighbouring Caria—at Mylassa—there is a tomb, fully illustrated in the volume of *Ionian Antiquities* published by the Dilettanti Society (woodcut 35*), which is so Indian in form, that if its details, which are principally Roman, were either omitted or

No. 35.



Tomb at Mylassa.

so worn as to be indistinguishable, and if the building were re-erected in Rajpootana, it would not excite the attention of the most keen-sighted antiquary from any peculiarity of form or construction; it is so like fifty other buildings of the class in that country. It possesses, besides (in its lower story), the only example I know of, of a bracket capital rising from a square pier. In India that form is universal, but it never was used in Europe, nor in any other instance so far west as this; but its existence here adds to the Indian feeling which the form of the monument suggests.

I have before pointed out its similarity to the monument at Dugga (No. 26), which, considering the difference of age and locality, I cannot but think is most striking. In Asia Minor it stands alone, without a single edifice of the same plan, so far as I know, existing to the westward of the Indus.†

These appear to me very strong grounds for assuming that we have

* “*Antiquities of Ionia*,” vol. ii., plates.

† “*Illustrations of Indian Architecture*,” by the author, p. 18

here the two extreme ends of a great chain of facts, the intermediate links of which must exist somewhere, and will no doubt reward the industry of well-directed research, when once fairly applied to the subject; when done it will throw more light on the ancient history, not only of India, but of all Asia, than anything that has hitherto been attempted. Lycia and India, however, can never be anything but outlying links of the great chain of Indo-Germanic races; and though they may point to the centre, till we reach that we can never hope perfectly to understand the ethnography of this race. That centre will probably be found somewhere between Nineveh and Balkh; and I am not without strong hopes that the recent discoveries on the banks of the Tigris may throw a strong and unexpected light on the subject, but till they are available for investigation it is needless speculating on the subject. It is something even now to be able to see that it can be done, and in what direction the long-looked-for land must lie; but some time must elapse before the question can be satisfactorily solved.

MAUSOLEUM AT HALICARNASSUS.

Before leaving this part of my subject, I must say a few words regarding a building which has engaged more speculation, and been the subject of more restorations, than almost any building of antiquity, excepting, perhaps, the temple at Jerusalem and the tomb of Porsenna. Out of some hundreds of designs for this building, no two resemble one another in hardly any particular, and no one either agrees with or reconciles the exigencies of the text. The knowledge, however, of the Indian connexion, pointed out above, coupled with the details of the monument at Mylassa, may help us to a solution of the riddle.

The mausoleum, as is well known, was erected by Artemisia in honour of her husband, who died 353 B.C., and stood in the middle of the city of Halicarnassus. The only authority for its form is a passage in Pliny, quoted below,* which certainly is but a meagre foundation on which to restore

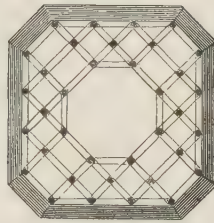
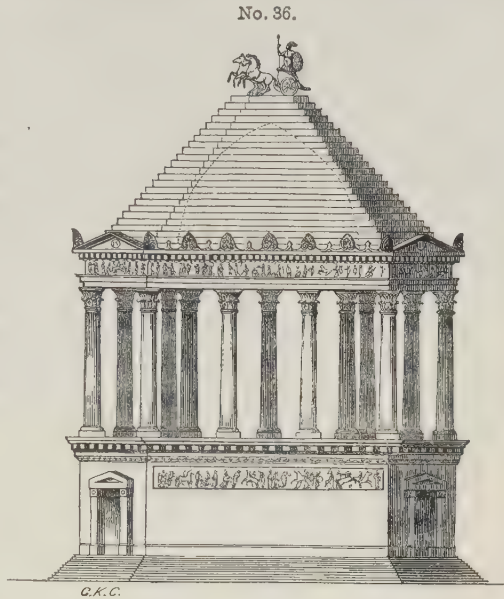
* "Opus id ut esset inter septem miracula . . . patet ab austro et septentrione sexagenos ternos pedes; brevius a frontibus, toto circuitu pedes quadringentos undecim; attollitur in altitudinem viginti quinque cubitis: cingitur columnis triginta sex, . . .

supra pteron pyramis altitudine inferiorem æquavit viginti quatuor gradibus in metæ cacumen se contrahens. In summo est quadriga marmorea, quam fecit Pythis. Hæc adjecta centum quadraginta pedum altitudine totum opus includit."

a building which was so exceptional as to be considered, in spite of its inconsiderable dimensions, one of the wonders of the world.

First, then, with regard to its height: the tomb is said to have been 25 cubits or $37\frac{1}{2}$ feet high, and the pyramid on the top to have been of the same height, making together, 75 feet; and if to this we add 13 or 15 feet for the chariot and the figure in it, there will remain 50 or 52 feet for the order. There is nothing in the text to justify the idea that the height of the pyramid was equal to all that was below it, as is usually assumed; on the contrary, a literal translation would lead us to suppose that there was a lower pyramid equal in height to the upper one. If the building was a square, this is the only possible way that occurs to me of reconciling the dimensions of 63 feet for one side with 411 feet for the total circumference; but, besides, it is so artistically impossible, that such an arrangement may be easily rejected.

The other dimension given is 63 feet for the north and south fronts, with the remark that the others were shorter, while the whole circumference was 411 feet. From this it is evident to me that the building was a polygon—most probably an octagon; and if this was so, we may either assume that the other four sides were about 40 feet each, or, as I have restored it, that the fronts facing the cardinal points were extended by steps to 73 feet, and the remaining four to 30 feet each: either theory is infinitely preferable to a square, which never could have made up the dimensions quoted. Besides that a building 63 feet wide in its greatest dimensions, and 140 feet high, is so awkward and ugly, and so unlike anything the ancients ever did, that I should have no hesitation in rejecting it



Mausoleum at Halicarnassus,
usual scale.

on that account alone, if the context did not afford another and more feasible mode of accounting for it.

The only remaining difficulty is the disposition of the column, and in the monument at Mylassa I believe we have the key to this also. In my work on the "Topography of Jerusalem," page 123, and more especially in my "Picturesque Illustrations of Indian Architecture," page 18, I have sufficiently explained the mode in which the octagonal domes of the Byzantines and Indians are supported on twelve pillars, precisely as in this one at Mylassa, and how the number is extended by adding two, four, or six columns to each face, the latter number being the most usual in India, and making up the exact number of thirty-six mentioned by Pliny; and I have therefore so arranged them in the restoration. We have thus a central dome, constructed horizontally of course, 50 feet in diameter, supported by thirty-six columns, through which the light was admitted to the apartment in the base where the tomb itself was.

According to my restoration, the inter-columniation would be externally about 17 feet, and it would require architrave stones 21 feet in length, which certainly is greater than any other ancient building I am acquainted with; but unless there was something extraordinary about it, why was it one of the wonders of the world? It was not large, for it would have stood on the floor and under the dome of the Pantheon at Rome; and there was scarcely a temple of Asia Minor, nor one of the great ones of Greece, that did not excel it in size, splendour, and decoration,—in all, in short, except some exceptional merit of design or construction. It could be built, and I would undertake to execute it to-morrow, as I have restored it; and if carried out with purity and beauty in its details, I believe it would be a more beautiful mausoleum than has been erected in modern times or left us from antiquity, while there is not one of the restorations hitherto produced which would not be not only inartistic in itself but most unlike any tomb or mausoleum in any part of the world.

In the restoration I have adopted a Corinthian order, as the one that lends itself most easily to such a complicated arrangement of the pillars. Doric it could not be, as nothing could be more foreign to every feeling and form of the Dorians than a mausoleum, and I cannot fancy anything more discordant than its employment for such a purpose. The Ionic order, on the contrary, is the one I would naturally have adopted, as especially the order of the tomb-building races, but its employment here would be so difficult that I can hardly think it was the one used; on the

contrary, from the character of extraordinary richness which distinguished this building, I think it more than likely that a foliated capital of some sort was used. If it is objected that the order was not invented at that date, it is only necessary to call to mind its existence in Egypt at least a thousand years earlier, and the two pillars at the entrance of the sepulchre of the Atridæ at Mycenæ.* The point, however, is not of much importance. The Ionic—such an order, for instance, as that at Phigalia,—might be used in the restoration if required, and could be adapted even to an octagonal building, but not so gracefully as the Corinthian. The true capital for such a one is the bracket-capital of the Indians; but for this we have no authority in this neighbourhood, except as hinted above in the tomb at Mylassa, and that is so much later in date that it is scarcely an authority for using it here.

I do not, of course, mean to assert that this restoration is an absolute likeness of the building in question, but I feel convinced that it is one that reproduces in every respect the text of Pliny, and at the same time satisfies the ethnographical as well as the artistic exigencies of the question, neither of which requisites are found in any of the preceding ones which I am acquainted with, and the only criticism I shall accept will be the production of a better.

* “Antiquities of Athens,” v. Plate V. of Mr. Donaldson’s essay on that building.

CHAPTER III.

GREECE.

It may, at first sight, appear to be almost a work of supererogation, and certainly about as hopeless a task as could well be undertaken, to attempt to write anything new on the subject of Grecian art, after its having employed so many able pens and industrious explorers for the last two centuries. Yet, if I am not mistaken, a true essay on Greek art is still a desideratum for the literature of the fine arts; but, whether it is or not, the subject must find a place in this work, whether in its old form or in a new one, if only as a means of comparison with the other styles which must be treated of.

Some years ago it would have been considered rank heresy to dare to doubt not only that the Grecian was the most perfect form of art that ever had appeared, but so perfect, that it was hopeless and absurd to attempt to rival or surpass it. Within this century, however, a controversy has arisen between the Classicists and Romanticists, which has shaken the old faith to its foundation; and, so far as the living world is concerned, it seems to have been almost decided against the former: in our universities and public schools it is still Greek and Latin only. But though we are now erecting, or have erected within the last few years, some hundreds of churches, not one of them is now being built in any classical style; all are correct Gothic, where twenty or thirty years ago at least three-fourths would have been Greek or Roman, and in the last century all would have been erected in these styles. The classical styles still, it is true, retain a hold on museums, and picture-galleries, and shop-fronts; but even our municipal buildings and clubs, which twenty years ago affected the pure Greek, have now got down to the bastard Italian, with a strong tendency towards Tudor-Gothic, which I have little doubt they will reach before the next twenty years pass over.

In itself I cannot say I think this change of fashion an improvement ; for it seems only deserting a pure and intellectual style to copy a rude and barbarous one, whose only recommendation is its being more suited to our climate : but I think we should have sooner attained something better by adapting the one than by copying the other. But be this as it may, if we are never to advance beyond the stage of slavish copyists, it is little matter what fashion we follow or what we copy : each may have his predilection where all must be wrong. But I rejoice in any chance which may rescue us from the dull monotony of pseudo-classicism, and emancipate the public mind from their long-cherished heathen idolatry. This service the Gothic revivers have certainly effected, and they have also taught the public to admire a style produced in our hitherto proscribed climate by our Saxon race ; and as, besides, I do not believe that so absurd a fashion can last long, I can only wish them God speed, that they may arrive as soon as possible at the acme of absurdity, and that people may see that what they now believe to be art is mere caricature.

In the meantime, however, it has left Grecian art free, so as to enable us to form a calmer judgment of its merits or defects than we ever could do before. We may now praise it for those qualities which brought it towards perfection, without the indiscriminate adulation which has sometimes been lavished upon it, and with the feeling of advocacy which one unconsciously falls into who is pleading for a style he wishes his contemporaries to adopt ; and at the same time the knowledge of another style, and a partial faith in it, will enable us by comparison to detect where the Greeks failed, as well as where they were more than usually successful ; and give us some standard by which we may guide our criticisms on the style, without falling either into undue admiration or unjust blame.

In one point of view the study of Grecian art must always be of the highest interest to the philosophical inquirer, and the most indispensable requisite for understanding the history of art, inasmuch as our knowledge of the past history of our race is so extremely limited, that we know of only one complete cycle in which we can trace the rise, progress, and fall, not only of a nation, but of a complete civilisation, and thus extend our views from the consideration of individual species to a whole genus. For that which was born and slowly nurtured on the banks

of the Nile and the Euphrates, suddenly expanded and reached its manhood of intellectual power in Greece, and perished in decrepitude and crime in Rome.

We cannot study it with advantage or instruction during its infancy, nor can we comprehend its capabilities, as we find it only in senility in Rome; but in its manhood we can at once appreciate the greatness it attained, and, with our knowledge of its causes and effects, judge fairly whether it failed in reaching the highest point it was capable of attaining, or whether it was so fortunately circumstanced that it did reach a higher point than it is probable can again be attained by any other people or group of nations.

Of those states which, before the Christian era, were grouped around the shores of the Mediterranean Sea, Greece certainly was the intellectual mistress: she inherited, both by her situation and by her race, all that had before been accumulated in Asia and Africa, and was so fortunately circumstanced as to elaborate this into a whole so perfect that she was enabled to give back to the parent countries more than she had received; and long before the Romans had amalgamated them into one empire of brute force, Greece had gained the intellectual command over them, and was looked on, both in Asia and in Africa, as the centre of the civilised world, and pre-eminent in all that was intellectually great. Were it possible to understand her arts without looking back to that from which they sprung, or seeing into what they tended, it might be sufficient to study them alone, without ever looking to their precedents or results, if we wished to understand what that form of civilisation was capable of: but I need scarcely add, this is impossible, and, unless we can trace it from its birth to its death, we cannot comprehend perfectly the manhood of the art we are speaking of; but even then it is the period of its bloom which must still be the type, the most interesting, and the only complete phasis for our study.

It is not here, but in a subsequent chapter of this work, that the application of the knowledge derived from the study of this complete cycle of the arts should be attempted to be applied to the present time, and our position in that cycle, which commenced subsequently to the fall of Rome. It is in vain to attempt to apply lessons derived from single facts or isolated communities to anything that is now passing around us, but when we come to such generalities as cycles we may,

probably, find similarities that would startle us, and may serve to guide us in our onward career, instead of allowing ourselves to be drifted hither and thither as chance may direct ; and if we applied with discrimination to the present the lessons derived from an extended and philosophical study of the past, we might find some general rules for the guidance of our wave-tossed bark, which might serve to guide it to some securer haven than has hitherto presented itself to our most sanguine hopes.

SECTION I.

PELASGIC GREECE.

CHRONOLOGY.

IN approaching the history of Greece the student has not, fortunately, to encounter any of those chronological difficulties which beset his path in attempting that of Egypt or Mesopotamia; and though the chronology is still far from perfect, and were I writing specially on the subject I should feel inclined to question many of the dates, still they are all sufficiently near the truth for my present purpose: the succession of events is perfectly ascertained, and their distance from one another sufficiently nearly so to prevent any confusion or misconception in an essay on art, though in a treatise on history the case might be different. This being the case, I shall adopt at once the chronology as set forth in the "*Fasti Hellenici*" of Clinton, or Blair, or any received chronology; except, of course, that of Newton and his followers.

Though, therefore, this difficulty is easily got over, the ethnological question is by no means so easily disposed of, for no distinct or settled opinion seems to be entertained on the subject; nor do any means appear to me available for the purpose, except the architecture, and as that has not hitherto been used for such a purpose, the question still remains in abeyance. Had we any traces of the language of the earlier settlers, and understood them, the question might long have been set at rest: but as we can scarce tell now whether the Pelasgi spoke Greek, or a peculiar dialect of their own, philology will not assist us in the present instance; and the Greek historians were too loose inquirers, and too ready to jump to conclusions on any tradition that came uppermost, or most suited their own peculiar views, for us to place anything like implicit reliance on what they say on the subject.

Chronologically, the principal points to be borne in mind are that Inachus and the earlier immigrants are said to have come from Egypt immediately after the accession of the eighteenth dynasty, or at the time

when the Shepherds were expelled from that country. Danaus, in like manner, left at the accession of the nineteenth; Cadmus arrived at the time of the Exode of the Jews; and Pelops and the principal body of immigrants arrived at the time of the establishment of the Assyrian empire under Ninus, and at the same time that the Etruscans, under Tarchon, landed in Italy.

These points, however, though curious and instructive, are not so much so for our present purpose as the knowledge of the fact that there existed in Greece two distinct and separate civilisations, one of which succeeded, and to a great extent superseded, the other. The first, which I have ventured to call Pelasgic, commenced with the foundation of Argos, about B.C. 1800, and continued down to the return of the Heraclidæ, eighty years after the fall of Troy, or about B.C. 1100.

After a long night of four centuries, the second begins to dawn on us with the Olympiads, and continued to progress towards perfection for nearly four centuries, till the age of Alexander, and after languishing for about two centuries longer, at last sunk under the baneful star of Roman influence. For this latter civilisation I have used the name of Hellenic, as one well understood, and generally applied to Grecian art as a whole, so that no difficulty can arise from its employment; the former term, however, is not so well defined, as no one seems quite to have made up his mind who these Pelasgi were, or whence they came.

For myself, I have no hesitation in repeating the assertion hazarded above, that the Pelasgi were a race closely allied to the Etruscans, speaking a similar language and practising the same arts; and, consequently, that they were a people who came like them from Asia Minor, and spoke a language having no affinity with the Indo-Germanic tongue we now know as Greek.

The principal difficulty to be got over in admitting this view of the case arises, I believe, from people not distinguishing sufficiently between a colonisation and a conquest, or, at least, the subjection of a ruder people by a few of a more civilised race. When, as for instance in the early centuries of Christianity, whole hordes moved slowly into uninhabited or thinly-peopled countries, bringing with them their wives and families, they brought also their language and customs, and, gradually, as the more numerous and more powerful body, obliterated those of the previous inhabitants; but when the immigrants are only a few adventurers,

or a band of soldiers, they adopt wives from among the conquered races, and their children learn to speak literally their mother-tongue, and soon lose their own. One of the most striking instances of this that we know of is that of the Normans, who, when settled for less than two centuries in France, not only learnt to use the Latin tongue of that people, but forgot entirely the use and even the memory of their own Teutonic speech; and in like manner, in this country, learned, though far more unwillingly, to return to a language much more similar to that of their forefathers. So, in Greece, I conceive that the country was inhabited before the time of the Inachidæ by a race of Indo-Germanic savages, the forefathers of the Hellens, who were civilised, and made to live in cities, and taught the arts of peace, by a few Pelasgic immigrants who had long practised these arts in Asia and Egypt, and who were, in consequence, so far in advance of their subjects as to remain the dominant tribe for centuries, though too few in number to introduce their language, but, on the contrary, they were themselves forced to speak that of the subject races: this was not the case in Italy, where the Etruscans were sufficiently numerous to form separate communities of their own, apart from the Oscans and Sabellians, and retained, in consequence, their own form of speech.

We know, nevertheless, from Herodotus and other Greek writers,* that the Pelasgi, when living by themselves, did speak a barbarous language, totally distinct from Greek, and continued to do so in his time; though, at the same time, the absence of such a language in Greece proper is puzzling, unless accounted for as I have attempted to do. Did we understand Etruscan, we might perhaps be able to trace many Pelasgic words in Greek, but of course modified by Greek forms and moulded into their own mode of expression.

I have little doubt but that the Inachidæ, who came from Egypt, were Pelasgi; and, in consequence, we may either assume that the Hyksos, who held Egypt so long in subjection, were of the same race as the Pelasgi, or that the latter were a tribe who had emigrated to Egypt like the children of Israel, and were, like them, expelled by the stranger-hating Egyptians. The former, however, appears to me the more probable view of the case; for, as I hinted above, there can, I think, be very little doubt but that their language was a Scythian or Tartar dialect, and as such the Hyksos are as likely to have been a cognate race as any other:

* Herodotus, i. 57.

some such affinity is the only means that occurs to me as accounting for the name of "Hellenic Shepherd," given by Manetho to his sixteenth dynasty.* It is in this race that the name of Pelasgus occurs five times, so that if any tribe were entitled to it it is this one; and we also find in it Larissa,† which is and always was so essentially a Pelasgic title.

Besides these, however, we have in early Greece a purely Egyptian element; as in Cecrops, who was undoubtedly a native of Sais in the Delta, but whether a pure Copt or a descendant of the strangers does not appear. He migrated about the year 1556 B.C., and the influence of his superior knowledge was apparently most striking in Attica. He seems, however, to have come alone, or nearly so, and to have married a daughter of the country; so that, though he may have given a new form to the arts and polity of the land, he could not, probably, have introduced one word of his language, whether it was Egyptian or Pelasgic: nor could Danaus and his family, though he, as the brother of the king Sesostris, was no doubt of pure Egyptian race. Still no nation was ever less inclined to colonise than Egypt, and no native ever willingly left his own beloved Nile and his own strange exclusive institutions; yet many, like Danaus, must have been forced, by circumstances, to expatriate themselves, and while Asia was under the power of their kings, where could they fly to but Greece? I question much, however, if any such immigration had half the effect on the subsequent Egyptian developement of the Hellenes as their constant intercourse with that country long after their supercession of the Pelasgi.

A fourth element must also be accounted for in the Phœnician immigration of Cadmus, and the constant intercourse that people kept up with Greece as traders: it is a most important one, if it is to them that the merit belongs of introducing their alphabet, and, consequently, sowing on that soil, not the dragons' teeth that bore armed men, but that seed which bore more fruit, and fruit more useful to them and to us than was ever produced by any seed that man ever left to fructify in the hands of succeeding generations.

Crete was another country whence Greece borrowed much in these early times; but whether it had any distinct civilisation of its own in those days, or not, is another question. Myself, I am inclined to look

* *Vide supra*, p. 184.

† Query, from Lars?

on that island as merely a stepping-stone on the road, the first place where the Egyptian, Pelasgic, and Phœnician civilisation met, as they did afterwards on the mainland, and that it was therefore merely a part of ancient Greece; but what we miss there is the Hellenic element, which afterwards became all in all in Greece, so as to obliterate almost altogether the preceding form, but which, unfortunately for her subsequent celebrity, never appeared in this island at all; and though, therefore, her mythic fame with ancient Greece was great, and the intercourse between the two countries, when both were inhabited by similar races, was intimate and frequent, she never could compete with the energy of a pure Indo-Germanic race, and sunk into obscurity almost immediately after her appearance in history.

If this view of the matter be the correct one (it appears to me to have at least the merit of accounting for all the facts of the case), we can have no difficulty in understanding why the arts of early Greece and of Etruria should be so similar as they really are, nor why the intercourse should have been so frequent between Greece and Asia Minor as it really was in those days; why the Argonauts should have traded as far as Colchis; and why half the male population of Greece should have spent ten years besieging the city of Troy, merely to avenge an insult which could not have been passed on them by strangers but could not be tolerated in near relations, who spoke the same language, worshipped the same gods, and were, in short, the same people. It will account also for the return of the Pelasgi with their families and dependants to the land whence their forefathers emigrated, when the Hellenic or Dorian races obtained the upper hand in Greece; and for the consequent foundation of the Ionian colonies, whose influence was felt in Greece to the latest times of her existence as a nation, besides many other minor points, some of which will appear in the sequel, but all which appear to be involved in the most inextricable mystery unless we adopt some such clue as that above proposed to guide us through the passages of the labyrinth.

ARCHITECTURE.

Architecturally, I think I can trace most distinctly the existence of these two races, both in Greece and Italy, for I look upon it as nearly certain that all the polygonal masonry and walls we find in these two countries were the work of the Indo-Germanic aborigines, whether Hellenes or Dorians, as they are called in Greece; or Oscans, Sabellians, or Umbrians, as they are named in Italy. While, on the other hand, the work of the Pelasgi, Tyrrhenians, or Etruscans, always exhibits masonry in horizontal courses, more or less perfect.

A priori, this view of the matter is, at all events, the most probable one, for it is almost impossible that a people coming either from Egypt or Asia could have ever used so barbarous a style, as they must have known something of the exquisite masonry which we know was certainly practised in the former country, and most probably in the latter, for at least a thousand years before the earliest existing buildings in Europe could have been erected; while, on the other hand, it is just such a mode as we should expect from aboriginal, uncultivated tribes, ignorant of any improved art of masonry, or what in this instance was more important, of the art of quarrying; and who, consequently, used the blocks and boulders they found lying about, and used them so as to diminish their bulk as little as possible, as on this last quality the strength of their walls almost entirely depended.

The great proof, however, of the matter is, that we find these polygonal remains principally in those countries where the native tribes remained least influenced by the Asiatic immigration. This is not so clear, at first sight, in Greece as in Italy; but in the latter country they are found principally in Latium, and generally in the countries between Etruria on the one hand, and Magna Græcia on the other—the country out of which Rome rose, with its Indo-Germanic language and forms. But of this more hereafter. But a third point appears to me inexplicable on any other view, which is, that we find the Dorian races in Greece using this polygonal masonry long after the return of the Heraclidæ, and mixed with the more perfect forms which, from their position, must have been used synchronously, as in the temple of Themis at Rhamnus (woodcut, No. 48); or in the bridge at Xero Campo, discovered by M. More;* or in Italy, in the

* “ Instituto di Corrispondenza Archeologica, 1838,” Pl. LVII.

walls of Cosa and Pompeii; and in Sicily, in the house at Cefalu;* or as in the annexed specimen of a wall in the Peloponnesus, copied from

No. 37.



Blouet's great work,† all which must be much more modern than the buildings of regular masonry, both in Etruria and Greece. And I cannot understand why men should use an imperfect mode of building when they were familiar with a more perfect one, except from that strange persistence in the characteristics

of race, which all nations display more or less; and which, in spite of civilisation or education, does peep out at times, and often when least expected.

Adopting, for the present, this view of the matter, it is evidently necessary to distinguish carefully between these two styles, and for this purpose I would apply to the former exclusively the name of Cyclopean, meaning thereby all masonry of polygonal blocks shewing more than four joints on the face of the wall, and without any horizontal lines running through it; and Pelasgic to the second style, where the blocks display only four joints, and the beds are horizontal, or nearly so. The annexed woodcuts shew a specimen of each of these styles. No. 38, taken from the classical walls of Tyrinthus, shews the rudest style, where the interstices be-

No. 35.



Wall of Tyrinthus.

No. 39.



Wall of Eleutheræ.

tween the blocks are filled up with smaller stones. At Mycenæ the blocks are made to fit exactly on one another, however various their angles may be, as in the upper part of No. 37. No. 39, from the walls of Eleutheræ, is chosen to display one of the marking characteristics of the Pelasgic style, inasmuch as most of the vertical joints are

* "Istituto di Correspondenza Archeologica, 1838," Pl. XXIX; and Wood's "Letters of an Architect," vol. ii. p. 356.

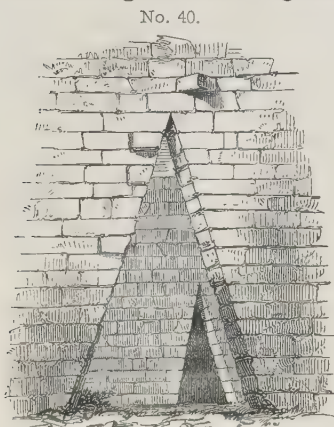
† "Expédition Scientifique de la Morée."

sloped at an angle to the horizon, which is a very frequent characteristic of this style, and often carried to a much greater extent than in this specimen. This, however, did not arise, I believe, from any imitation of the Cyclopean style, but from what really forms the distinguishing peculiarity of their mode of building, which was that of making all the jambs of the doorways sloping, and using everywhere horizontal arches, and also occasionally walls, with a distinct talus like the Egyptian one: so that, though their masonry is as perfect in principle as it could be, they seldom or never could use blocks which were cubes or rectangular parallelopipeds.

In many of the typical specimens of this age in Greece, such as the walls of Tyrinthus and Mycenæ, we find both these styles mixed up together in almost equal proportions, which may be accounted for either by supposing that the Pelasgi employed the natives to build these walls in their own rude style, or, what is far more probable, that these were fortified cities of the Helleni before Danaus or Pelops came to Greece; and that they or their successors only repaired those ancient fortifications, and inserted into them the gateways and galleries, and other pieces of Pelasgic work, which have always the appearance of an insertion, or after-thought, and generally fit badly into the ruder work. Still, when we know that two people are living and working together, it is almost impossible to distinguish accurately how far the superior race may have conceded to the prejudices of the ruder one; or, on the other hand, how much instruction they may have imparted to them in their own superior processes.

To the antiquary these Cyclopean remains are of the utmost interest, and also to the philosophical historian of art, who tries to trace the origin or affiliation of styles; but to the architect or artist they can have none, as they really have no feature except that of rude massiveness, which squared masonry would give as well, if not better; and what architectural features are found interspersed with these polygonal blocks belong to the style I have denominated Pelasgic, and, as I said before, probably were inserted afterwards by that people. But be this as it may, it is only to the latter style that we can turn in hopes of finding anything artistic; and I fear not much even then, though there are two features found among these remains whose historical importance to the art of architecture it would be impossible to overrate—the invention of the horizontal arch and of the circular dome. I call them inventions, because there is no trace of them in Egypt, at least, certainly not of the latter, which is the more important one; nor in any Eastern country anterior to their being found in Greece.

The simplest form of the horizontal arch is shewn in figure 40, taken from a singular building near Missolongi, where the outline is straight and



Gates of Missolongi.*

pyramidal from the base to the summit. A modification, and certainly an improvement, on this form is found at Mycenæ and Orchomenos, where the opening is divided by a large, bold lintel, and the slope of the jambs below it made less than that above (see woodcuts 44 and 46); still the principle is the same, and differs from any form adopted anywhere else. In Egypt, it is true, something like it is found in the Pyramids—in the great gallery, for instance, of the great one at Gizeh, and the central chamber of one of those at Saccara; but in these instances, as in most others, the faces of the stones are left perpendicular, so that they look like inverted stairs, which is rarely the case in the style I am now speaking of, where they are generally cut away to a smooth, and sometimes to a curved, surface.

As a mechanical contrivance it certainly is an ingenious way of getting over a difficulty without the use of larger stones (an advantage, however, thrown away at Mycenæ); and though it is not capable of covering such spaces as can be done with the true arch, the absence of all lateral thrust is an advantage we are too apt to undervalue, and its stability is proved by so many of them existing now after standing three thousand years, and being at this day as perfect as when erected.† As an artistic feature, I fear a triangular opening can never be made a graceful one, but when dis-

* There are three forms of arches which it is necessary to distinguish here; first, the Egyptian, consisting of two stones resting against one another at a given angle; it is universal almost in the Pyramids, and one example of it is found at Delos (woodcut, No. 43); the second is the Pelasgic form, consisting of stones projecting one beyond another, with their faces smoothed into a straight line, as in the above illustration, No. 40; or with the sides curved, as in Nos. 41, 42, &c.; the third, the true or Roman arch, where the extrados are wider than the intrados of the arching-stones.

If other names than arches could be found for the former two, it perhaps would be better; but they are scarcely of sufficient importance to demand such a distinction.

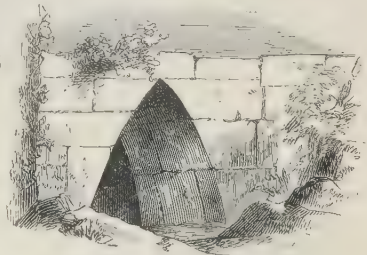
† Modern architects, with their usual felicity, have always assumed these sloping jambs to be an Egyptian feature: because, forsooth, the Egyptians sloped the outside of their walls so as to give them strength—to make them half pyramids, in short—the architects assume that they must have adopted this weak form for their jambs. Had an Egyptian sloped them at all, it would have been the reverse way;

guised, as at Mycenæ, with a cross lintel, and the upper triangle filled with sculpture, it is not so objectionable: but still a sloping jamb must always be weak in appearance, and the same courses of masonry being continued to the opening, give it more or less the appearance of an after-thought,* as if the masons had afterwards cut the door out of the wall, having forgotten it in the first instance. A little preparation for so important a feature is always desirable, and its decorations should always, if possible, be cut off from the usual decoration of the walls, so as to make a separate feature of it.

This form was almost, as a matter of course, continued in the Pelasgic or Ionic order of the later Greeks, but was never adopted in the Hellenic or Doric order; and though it is, no doubt, interesting as an ethnographic fact, to find it subsisting through such changes for so long a time, artistically, I fear, it never can be anything but a weakness and a blot on an otherwise beautiful style.

An improvement on this form of opening was very early adopted, and is found in all the countries where the Pelasgi existed; it consists in curving the sides of the opening so as to form a regular pointed arch—a form borrowed, perhaps, from that of the domes which that people so frequently erected: it is found in all the Etruscan cities of Italy, and in even more perfection than in Greece, as will be shewn hereafter. In the meantime, however, the annexed illustration from a gateway at

No. 41.



Gateway at Thoroncus.

but in every instance I know of they are perpendicular,¹ and I do not believe a sloping jamb exists in the valley of the Nile. Every modern Egyptian building possesses this characteristic to the full extent, and when antiquaries find it in Grecian architecture, they immediately refer to Egypt for its origin, and talk of it as a purely Egyptian feature; whereas it is purely Pelasgic, and found only in the buildings of this Asiatic people, or in those buildings

built by their lineal descendants, which most resemble them in style, such as the Pandrosion at Athens, and the circular temple at Tivoli.

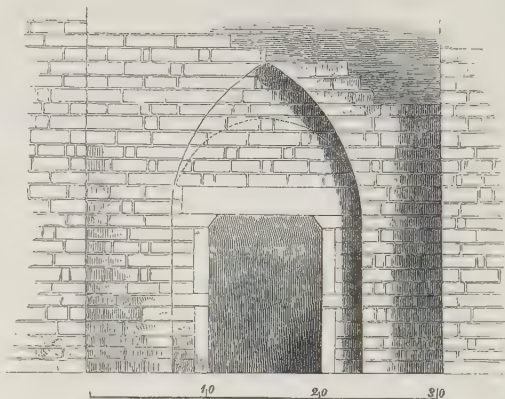
* It may have been that the doorways were finished with bronze or wooden jamb linings—most probably the former, if any, as the Pelasgi seem to have been singularly expert as workers in metal, and to have preferred it as an architectural material to either stone or wood.

¹ In woodcut No. 8, something like this occurs, but I believe it to be a mistake. I have no view of my own, and have, therefore, copied literally the only one available;

it answers the purpose for which I used it above, though incorrect, as nine-tenths of the published Egyptian views are on this point.

Thoricus, in Attica,* will explain its general form : but the most perfect specimen I am acquainted with is one of the gateways at Assos, in Asia Minor† (No. 42), where it is used in conjunction with the more perfect masonry of the best age of Grecian art ; and what, perhaps, is more singular, combined with a perfectly formed circular arch (shewn by the dotted line) on the other side of the wall, but both used without the smallest evidence of the architects being aware of the principles of the true arch.

No. 42.



Gateway at Assos.

Besides these, the older Greeks sometimes used the true Egyptian arch, if I may be allowed to apply the term to two stones meeting one another in the centre, as is found so frequently in the Pyramids, but in Greece only, so far as I am aware, in the instance illustrated in the annexed

No. 43.



Arch at Delos.

woodcut (No. 43) of one found in the Isle of Delos ; but then its age is unknown, and I am not quite sure if such a form should not rather be ascribed to the Hellens than to the Pelasgi.

In the woodcut given above, (No. 39), though the masonry is purely Pelasgic, and the doorway possesses the sloping jambs of that style, the mode in which the stones are disposed over the lintel shew a knowledge of the principles of the arch, which, though disguised as distasteful, is rather ingeniously used to discharge the pressure from the weakest part of the opening ; and it may have been to

* From Dodwell's "Pelasgic Remains."

† From Baron Texier's "Asie Mineure."

prevent this being observed that they sloped the joints in some of the neighbouring courses.

Though a part of the same system, the circular domes used by the Pelasgi are, both artistically and historically, far more important features than these sloping openings.

The finest at present existing example is the so-called Treasury of Atreus, at Mycenæ, of which a plan and section are here given; and though its

No. 44.

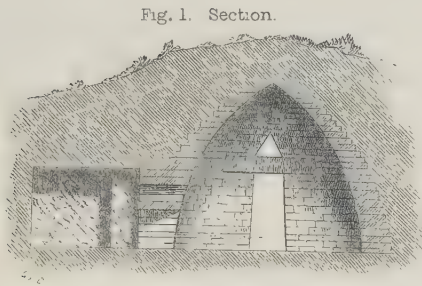
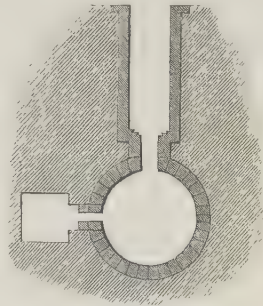


Fig. 2. Plan.



dimensions are considerable (48 feet 6 inches in diameter), it was surpassed by that of Minyas at Orchomenos, which must have been twenty or twenty-five feet wider, and probably as much higher than this one. It was, however, an effort beyond the skill of the architect, or, perhaps, of the style, for it is entirely ruined; while its less ambitious rival has survived in perfection, though three thousand years have elapsed since it was completed.

Though less than that at Orchomenos, the one at Mycenæ is larger than any of those hitherto found in Etruria, or among the nurhags of Sardinia, or in the tumuli of Northern Europe; and if more important ones are to be looked for anywhere, it must, as I said before, be among the tumuli at Sardis, which promise, when opened, to throw more light on the history of these ages than any monuments I know of.

The name of "Treasury" was given to them by Pausanias* in speaking of that of Minyas, but there cannot be a doubt but that they were tombs; men do not erect treasuries outside the walls of citadels, and raise tumuli of earth over them to mark the spot, and into which any one could dig, while they either put no doors on them, or, at least, provided no means of fastening them, as is the case here: besides, there is sufficient direct

* Pausanias, ix. 38.

evidence to prove very nearly that the tomb of Agamemnon was situated where this one is found, and the similarity that exists between it and the tombs of Etruria proves the matter beyond a doubt. Besides, it is easy to see how the mistake arose. Supposing, for instance, the famous Regulini Galeassi tomb at Cervetri had been opened some centuries before, or at the time of Pausanias; who would have conceived that a concealed room, filled with armour of the most precious description, and furniture, and jewels, without one symptom of death or burial, was a tomb, and would not have mistaken it for a treasury, particularly if we recollect that this mode of burial had become obsolete in Greece for more than a thousand years when Pausanias wrote; and, with the usual loose ethnology of the Greeks, he neither knew nor cared much to inquire whether or not the inhabitants of Greece were in his time the same as they had always been.

Except these two,* I am not aware of any tombs of importance of this class that have been opened—or, at least, described—in Greece; but some must have existed, though, probably, smaller. As it is, their sepulchres are almost the only means by which we can hope ever to elucidate the history or the arts of these Pelasgi: so, at least, they have proved to be in Etruria, for in neither of these countries do this race appear as temple-builders; tombs were their only form of monumental art, and without them we should be able only to trace their existence in the vague and contradictory traditions of their mythic poetry.

It appears from Thucydides† that there were no temples in Mycenæ, nor should we expect them; for nowhere that I can trace did this people ever build a temple—at least, one of any importance.‡ Oracles and augury were their principal mode of holding communication with the deity and questioning futurity: the one could only exist in particular spots, as at Dodona and Delphi, the latter was performed in the open air; and an altar placed anywhere, but especially in the courts of the

* One of the few buildings of Greece mentioned by Homer is the tomb of Æpytus, in Arcadia, which is described by Pausanias (lib. vii. 16) as a mound of earth surrounded by a circular basement of stone. Had he been describing a tomb at Tarquinia, he would, probably, have used the same words. It still, I believe, exists.

† Thucydides, book i. chap. 10.

‡ If we may trust Herodotus, the Pe-

lasgi were originally as monotheistic as the Jews or any other Asiatic race; so, at least, I translate his expression (ii. 52), that “they had no names or surnames for their gods till they learned them from the Egyptians, but called them merely gods, or disposers, because they disposed everything in order, and had in their hands the distribution of all things.” The plural here used is, probably, merely a Hellenism.

houses of the great, seems to have sufficed for all the propitiatory worship of the people. Nor can we trace from Homer, or the earliest writers, the existence of any other form, or any more important building appropriated to this purpose.

On the other hand, a more important part of the religion of this early people seems to have been a hero-worship, or veneration paid to the manes of their ancestors, and oblations and ceremonies performed in honour of them, or with a desire of propitiating them to assist their pious descendants; so that their tombs, in fact, may be considered as their principal temples. And thus the Hieroum of Perseus, or this tomb of the Atridæ, were, in fact, at Mycenæ, the religious edifices of the Pelasgic races. If it were not following the subject too far now, it would not, I believe, be difficult to shew that the Topes of India and Bactria are the lineal descendants of the tombs of the Pelasgi, and how they became at last objects of worship in themselves, irrespective of their being burying-places.

An important fact, however, with reference to Greece itself is, that this ancestral worship of these people gave the principal actual form to the subsequent religion—or, rather, mythology—of the Hellenic Greeks, which really consists in nothing more or less than the worship of the ancestors of these Pelasgi; not, indeed, as an ancestral worship, which I conceive it originally to have been, but dignified by distance into an assumed worship of the divinity.

It will be observed, however, that all the gods of the Hellenic Greeks, from Jupiter down to Hercules, were the ancestors of these Pelasgic tribes, existing either in Crete, or, more generally, Asia Minor, and the islands of the Archipelago, but seldom in Greece itself; and though the admixture of Egyptian Fetichism, on the one hand, and of the Indo-Germanic metaphysics on the other, altered the forms considerably, still the principal element in the mythology of the Greeks appears to be a hero-worship, descended directly from a people whose religion was little else than a form of ancestral adoration.

Nothing can shew more distinctly how different the second civilisation of Greece was from the first, than the fact of the total neglect of these forms by the Hellenes: for, during the great age of Grecian art, we have not a single specimen of a dome of any sort, and scarcely of a sloping jamb; and not a trace of these in the Doric, but only in the semi-Pelasgic Ionic order. On the other hand, it shews how much more Rome was

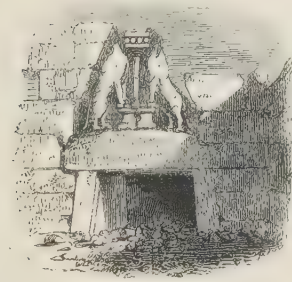
Etruscan than Greece Pelasgic, that it was left to that inartistic people to dig up—if I may use the expression—these domical buildings, and to carry them to the degree of perfection that they did in their circular peristylar temples, and more especially in the Pantheon, where it was carried to a point of perfection that has not since been surpassed: though, at the same time, I do not think it admits of a doubt but that the domical is—internally, at least—the most pleasing form of roof yet invented, the one most susceptible of improvement from an improved means of construction; and I look on the neglect of it in the middle ages as one of the greatest mistakes ever made by a national art.

It is true, however, that there were difficulties in the way of using these domes that may have deterred the Hellenic Greeks from attempting it. For, in the first place, they were interiors, and only pleasing as such; they had no external decoration, and their outward form was certainly unpleasing; there were, besides, difficulties in the way of lighting them which could not then be easily overcome: all which were objections to their being used with a style so essentially external and sunshiny as this Greek architecture was. It is true the Romans, by bending a peristyle round them, and using a true arch for the dome, half got over the difficulty; but I question very much if the rectangular form, as an exterior, is not always a more pleasing and characteristic one than a circular form ever can be. The Greeks, at all events, certainly thought so; and it was only when art had passed its zenith that they employed the circular form for such buildings as the choragic monument of Lysicrates, or the tower of the Winds at Athens, and then only in buildings which were playthings—mere ornaments, as these were. Besides this, the Greeks had no occasion for tombs or tomb-like buildings of any sort; they did not worship *their* ancestors, and, like all Indo-Germanic races, they were very indifferent about their own sepulchres: a small memorial to mark the grave, or a simple stele to tell who was buried below, being all that any one of pure Sanscrit race ever cared for having placed over the body from which the soul had parted, and which they in consequence always considered as the most worthless part of humanity. This was, certainly, an immense stride in advance of the body-preserving propensities of the Pelasgic or Egyptian races, and should be appreciated as a step towards elevating the intellectual spirit above the material body, which had no small influence on the subsequent art and utterance of Greece; it forms, at all events, a distinction in speaking of the two races that should never be lost sight of.

The only specimens of decorative architecture that have been spared to us from the Pelasgic age are a few fragments of the external decorations of this tomb of the Atridæ at Mycenæ. The principal one is the fragment of a column, with its base (see woodcut, 45), which, besides its intrinsic elegance, is interesting as being so totally different, both in form and style of decoration, from anything afterwards found in Greece, or that we know of existing in Egypt, or, indeed, in any part of the world: if its counterpart be found anywhere, it will probably be in Asia Minor, or further to the eastward. In the meantime we must accept it as the fossil remain of an extinct race, of which we can only dimly trace the affinities; though, at the same time, we can have little difficulty in asserting that it does not belong to any existing species with which we are acquainted.

The ornament on this, as well as on several fragments of the decoration in the British Museum, consists almost exclusively of spirals reversed alternately: as used here, they are badly drawn, and worse executed, but they shew the rudiment of a style of decoration unknown in Egypt and in the Doric orders, but one of the principal forms of Roman decoration, and common at Persepolis and throughout the East, and which at a later age gave rise in Asia to the Ionic order; so that, like

No. 46.



Gate of Lions, Mycenæ.

every fragment here, they are pregnant with history, and as such cannot be too much studied, though they are too incomplete as specimens of art to afford any lessons much worth attending to.

Of the painting of these ages we have no traces, and, unfortunately, only one specimen of their sculpture, in the two lions that surmount one of the gates of Mycenæ: like everything else here, they have no affinity whatever with Egyptian or Hellenic art, and it is only on the banks of the Euphrates or Tigris

No. 45.



Fragment of Column at Mycenæ.

that we can find anything at all similar: but they do resemble very much in outline what is often seen in Babylonian cylinders, and in execution are still more like the strongly accidented *bassi relievi* of lions and monsters which are found at Persepolis, or have lately been brought to light by excavations at Khorsabad and Nimroud. Nothing exactly similar has yet been discovered, but I think there can be little doubt about the style.*

These fragments, it is true, are not much when we consider that they are all that has yet come to light to enable us to reconstruct an extinct civilisation: but well-directed industry will, probably, bring many more to light; and in the meantime it is something to possess even so much of a people of whose language we know not one single word, and of whose position in the scale of intellect, and of whose affinities, we can never hope to know anything except through this channel. Yet it is a people who, in their various ramifications, had almost as much influence on the civilisation of the ancient world as either the Egyptian or the Sanscrit races, and whose peculiar idiosyncrasy formed a substratum underlying all the arts and institutions of Greece, which we occasionally detect appearing above the surface, but without—hitherto, at least,—being able to assign its true position in the system, or to account properly for its appearance there.

* The four balls above the top of the pillar that stands between the two lions have given rise to some speculation among the learned, but I think it can scarcely be

doubted that they are merely parts of the order, and identical with the forms shewn in the Lycian tombs; as, for instance, in woodcuts 32 and 33.

SECTION II.

HELLENIC GREECE.

THE irruption of the Thessalians sixty years after the Trojan war, and the return of the Heraclidæ—a second wave of the same tide—twenty years afterwards, are events that divide the history of Greece into two great divisions, and draw a line so sharply between them that it is almost impossible to confound the one with the other.

To these events succeeded a long night of four centuries, which may truly be called the dark ages of Grecian history, and during that period we have not one trace of any art of any sort; and when again, under Cypselus of Corinth, we begin to feel that art is reviving, it is in so new a form, and so different from anything that existed before in Greece, that we are startled at the novelty of the apparition: but it was the commencement of a brilliant era—a new child was born—and there was hope, and that hope for once was not disappointed.

During the first century after the return of the Heraclidæ, the Dorians seem to have been exclusively occupied in quarrels among themselves, and in expelling the unfortunate Pelasgi, who during this period were gradually expatriated, and sought shelter and a home in the more genial harbours of Ionia.

Once they had fairly settled themselves in the country they had conquered, Lycurgus sought to give a form and stability to the Dorian institutions; and a hard, savage, ungenial form it was. Lycurgan Sparta might boast of the massive bones and hard sinews of a well-trained athlete, but grace and elegance were for ever banished from her walls, within which art never did or could flourish; and but for the softer glories of her rival, the semi-Pelasgic Athens, we should not now know her name, or feel more sympathy for her than for any horde of savages in any quarter of the globe.

An institution, however, that had far more influence on art than the laws of Lycurgus, arose about a century later, in the Olympic games. At first, it is true, they were established only for the encouragement of the

lowest technic arts of running, wrestling, and chariot-racing ; but afterwards poets, dramatists, and historians, as well as painters, and sculptors, and artists of every sort, attended this great artistic congress of the united Grecian states, and strove for the prizes then distributed, or sought to make their works known by competition in this great assembly. In the absence of a public press, perhaps no institution could be more happily devised to give unity to the arts of a people, and to encourage them by emulation and by honours, than this truly national and original institution of the Greeks. It was not, however, in this age of darkness that its beneficial effects were felt, nor till long afterwards. The seed, however, was then sown ; it bore its first fruit about the time of the Persian invasion.

There are few facts connected with the history of Greece that appear to me more certain than that the Dorian invasion threw back the civilisation of the country by at least the whole period that elapsed between that event and the age of Cypselus, and that at the latter period the Greeks were generally less advanced in all the arts of peace than they were in the age of Agamemnon. It is, perhaps, however, to this very circumstance that the arts of Greece owe their greatest perfection ; and certainly it is from it alone they derive their originality. Had they gone on perfecting the Asiatic arts of the Pelasgi they might have done what the Etruscans accomplished, but no more ; as it was, during these five centuries the very quarrels and wars, and consequent displacement of the different tribes, served to amalgamate the various races that inhabited Greece into one people, speaking one language, and having one nearly uniform set of institutions. During this period also the country had time to become sufficiently populated, not only to prevent there being room for any further foreign immigrations, but, besides, the Greeks were then able to throw out colonies which afterwards became of the utmost importance to the mother-country. Those of the Dorians, proceeding from Lacedæmon and the other more purely Doric states of the Peloponnesus, occupied not only the whole of Sicily, but almost all the southern half of Italy, and the islands between them ; and though Athens, Corinth, and the semi-Pelasgic states of Eastern Greece, did not so distinctly send their sons to found new states, they drew closer and closer the relations of commerce and bonds of amity that had always existed, more or less, between them and their countrymen who had emigrated to Ionia and the islands of the Archipelago shortly after the return of the Heraclidæ. Besides this, the warlike spirit of the

Dorians made her respected by all the neighbouring powers and states, so that when she again awoke from her long slumber, Greece found herself the centre of a community extending east and west from Sicily to Ionia, speaking the same language, professing the same religion, and united by nearly similar institutions ; and this at a time when Egypt had sunk into senility and decay, when Assyria had become enervated by her luxury, and Lydia, for a like cause, was ready to become the prey of the first more hardy adventurers : while Etruria, in like manner, found herself no longer able to advance in a worn-out civilisation in a foreign land, and before Rome had emerged from obscurity.

In these circumstances it was no wonder the Grecians believed themselves to be the only civilised people of the world, and it was under these favourable auspices that she stepped forward in her career, full of hope and high aspiration, too self-confident to attempt to follow in the wake of any preceding civilisation, and at the same time too inquisitive to disdain to learn from any one all that it could teach.

History scarcely affords an example of so fair a field being offered to the energies of a young and vigorous nation, nor, it may be added, of any people stepping forward into their destined path with more vigour and honesty of purpose than did these Hellenic Greeks. It was a noble promise, and the records of our race cannot point to one more nobly kept.

INVENTION.

The period of which we are now speaking has been called the Age of Invention by the Greeks themselves, with that national vanity which certainly was one of their most distinguishing characteristics. During these dark ages they lay claim to the invention of all the arts and all the processes connected with them ; and, what is still more singular, modern writers have generally been inclined to admit this very absurd pretension. If, however, we turn to Egypt or Assyria, we find that not only all the arts practised in Greece were used there long before she existed as a country, but that, so far as mechanical execution was concerned, Greece never surpassed, and rarely equalled, the Egyptians ; and while we know also that many of them were used in considerable perfection in Greece herself prior to the return of the Heraclidæ, it is rather absurd to suppose she invented

what was used thousands of years before she existed, and was currently in use within a few days' sail of her coasts while she pretends to have been busy inventing it. Perhaps, however, the dispute is a mere quarrel about terms; and if it is asserted that Greece copied anything from Egypt as we copy, it is easy to answer — She certainly did not; indeed, no nation till our time ever did so silly a thing: but she borrowed every idea and every process that could advance her, or which she could use in practising the arts. Had she not done this, neither five nor ten centuries would have enabled her to emerge from barbarism; but thus appropriating as she did all the knowledge that preceding generations had accumulated, and melting it in her own crucible, so as to mould it to such forms as were wanted, is the one process by which any nation can either hope to surpass those who have preceded her, or to advance her own peculiar views.

With regard to Egypt, — if a Grecian lawgiver, for instance, travelled to the banks of the Nile — which they all did with scarcely an exception — if he found a law or regulation which he admired, he did not insert a copy of the Coptic edict in his Grecian code, but such modified extract of its spirit as suited the circumstances and manners of his countrymen. If a sculptor went there and saw some improved mode of carving or casting statues, he did not, on his return, repeat the stiff Egyptian figure he had seen, but applied the process only to his next work; he had learned, as far as design was concerned, the far more useful lesson of how to avoid the defects rather than how to imitate the merits of the work he had seen made. An architect did not in those days go to work as our modern travellers do, by drawing correct plans, sections, and elevations of Egyptian temples, with the strange idea of re-erecting the incongruous edifice on his own shores; but he strove to make himself master of the mechanical and masonic processes by which it was erected, observed what was good in the mode of the lighting, how the effect was produced, and what mechanical effect he might dare to introduce: these he studied, not with the idea of copying a single detail of the building he was looking at, but to learn how he might improve his own native art, and how he might employ these means towards perfecting it, and it only.

This difference between borrowing and copying is one of the most essential importance for understanding not only Grecian art, but all art; and were we to practise the former as the Greeks did, we could as easily surpass them as they did the Egyptians: hitherto, however, we have been content to copy, as machines might do, without attempting the intellectual

process of adapting ; and our art, in consequence, is a mere mockery. To say that we are to shut our eyes to what has been done, is an absurdity as great as to worship the past with the slavish despondency we now do. The first process must be to know all that has been done, and then start from that highest point to surpass it : this the Greeks did, and hence their success.

Every thing that came to Greece from foreign parts was first elaborated in the mind of the observer—if I may use the expression—translated into Greek, and again communicated by him to people ignorant of or careless regarding the original, and who only looked on it as a suggestion to be adopted if good and fitting for their purposes, or an improvement on their previous processes ; so that, before we find it in Greece, it had become as essentially Grecian as if it had been elaborated in the brain of some inventive Dorian, who had never left the walls of his own native city.

Most of the arts of Greece, however, reached that country double distilled, for the expelled Pelasgi retained at least that degree of perfection in art they had reached before forced to expatriate themselves. They remained during those dark ages in advance of the tribes who then occupied Greece, or were left in Europe, and maintained that advance by perfecting these arts, and engrafting on them the improvements they found or could gather in Ionia, and the neighbouring highly-civilised states of Asia ; and it was from these colonists, through their commercial and family connexions with the mother-country, that Greece derived more knowledge of the processes of art, and more that influenced its forms, than she did from Egypt or any really foreign country. They might not—indeed, did not—influence the purely Dorian states of Sparta or Argos ; but Athens, Egina, and Corinth derived from them almost all they knew, and they were not only the first to advance in the career, but almost the only ones who were successful in the race.

The Greeks themselves seem almost universally to have acknowledged this priority of the Ionians, and do not seem to have been ashamed to acknowledge having borrowed from a kindred race what they were too proud to allow they had been instructed in by strangers, whom at all periods of their history they affected to despise.

Unfortunately, however, for this chapter in the history of the arts, all the early monuments of the civilisation of the Ionian colonies have perished ; with few exceptions, their temples were destroyed in the times of Darius and Xerxes, and everything was done that a barbarian could do to humble their

pride and destroy all traces of their superiority to their conquerors. Something, however, must have escaped even that tempest ; but the troubles and bad government which have cursed that country, nearly from that time to this, have succeeded at last in obliterating all, and we have not now one monument to which we can point with confidence as a remnant of that people before the reaction from Greece made her former masters her disciples and followers. Indeed we have now scarcely even the name of an artist prior to those who, like Rhœcus and Theodorus, were contemporary with Cypselus of Corinth, unless it be Bularchos, for whose pictures Candaules paid so high a price ; but this, I conceive, must arise from our ignorance, not that they did not exist or execute works worthy of being handed down to us at least by fame.

HOMER.

Though all the material manifestations of art that existed in Ionia have perished, the greatest still remains to us in the great Homeric poems, and the one that had by far the greatest influence on the arts and civilisation of the Grecian states ; so that whatever may be said of these countries during this age, will always mainly hinge on what may be determined regarding the age and origin of these immortal works : for they were to the Greeks what the Pentateuch was to the Jews—that which gave them the form of their theology, and fixed the traditions of their race in a tangible and consistent form. When the arts of Greece were revived under the Cypselidæ and Pisistratidæ, time had sanctified them and half-deified their heroes, and the nascent arts found in them a mass of original and native poetry sufficient to render them independent of all foreign sources ; and what they undertook, and so successfully accomplished, was little more than to translate that poetry into other forms, with such scholiæ, or additions, as these other arts enabled them to add to the mere verbal utterance of the bard ; and while Lycurgus was publishing his hard cold laws to the Dorians in Sparta, Homer sung to the Pelasgi in Ionia what was to them not only law, but morals, and religion, and art, and what gave to their civilisation a form that no code of laws ever could have impressed on them.

Without the possession of the Homeric poems, the arts of Greece would

be nearly unintelligible to us, or, at least, would want that meaning and unity we can now trace in all their various forms; and, in like manner, if we studied their arts more intently and philosophically than we have done, we should understand Homer far better than we now do. They are not only the greatest poems the world has yet seen, but they are the true and only text-book of Grecian art, and, as such, I must say a few words regarding them here; though this is not the place, even were I equal to the task, of entering into the thousand and one considerations which the disputed questions regarding them have given rise to. Enough, at least, is known to serve my purpose, and I am too well aware of the uncertainty that must rise from any argument based on any single passage in Homer to attempt to found any theory on it. For though I cannot but believe that the "Iliad," at least, though not perhaps in its present form, was the work of one man, and that man of the very highest class of genius, I am willing to admit that much may have been interpolated in it, and that the "Odyssey" may only be a collection of detached fragments of that age, put together in imitation of the greater poem, and to form a companion to it. Still this would not disprove the fact that many parts of it were by the same bard as the "Iliad," and that he may have written a poetic narrative of the return of Ulysses, into which other and later poems were interpolated.

Indeed, I am inclined to believe that the original epic of the fall of Troy consisted of one consecutive narrative, from the rape of Helen to the return of the warriors, as would naturally be the form in an age when the bards were the only historians, and that the artificially compressed form in which we now find them was adopted by the European Grecians at the time when they were introduced into Greece, about the sixtieth Olympiad, and when the exigencies of Greek art required an attention to the unities of time and place, which eventually pervaded every branch of their art.

Shortly after the Pisistratidæ, Polygnotus painted almost the whole "Iliad" and "Odyssey" in one or at most in two pictures in the Lesche at Delphi, the figures being arranged in the Egyptian manner over one another, in two or three lines, but without separation or division; and instead of any accompanying text, as would have been inserted in Assyria, the names only were written over each of the figures, to distinguish who the persons represented were, leaving the rest of the story to the poem; so that, had the events thus portrayed been distant from one another in time, it is

evident what a strange unintelligible jumble such a picture would have been : but as they were all connected with one another, with scarcely any unemployed time intervening, the defect of the arrangement was not so apparent.

The difficulties and imperfections of the early stage, as well as those inherent in painting and sculpture, led the Greeks to insist still more strongly on this unity of time and place, so that it became an established canon of art with them, even in the epics, where, however, they have done inconceivable harm by its introduction. Nothing but this could have induced a poet to compress the whole of a poem relating the war of Troy into eleven days for twenty-two books, allowing besides this only twenty-two days to the first, and twenty-four days to the last book ; and to make the "Odyssey" commence only forty-eight days before the return of the hero to his desired home.

That this attention to the unities enabled the Greeks to represent these poems in various forms, which, without such an artificial structure, it would have been impossible to accomplish, and besides made it uniform with all their other arts, may, perhaps, be a sufficient excuse for their having done it ; but with modern poets, who have all followed it, it becomes clumsy and unmeaning to an extent that is perfectly ludicrous.

I have never seen any satisfactory suggestion which accounted for Homer, at the early age in which he lived, having adopted so artificial a structure ; but when we come to have an intimate knowledge of the arts of Greece about the time of the Persian invasion, it appears to me almost as difficult to conceive how any national work could escape being remoulded on those principles which, in the drama, in painting, and in sculpture, were absolute necessities, and had become the acknowledged standard of excellence.

That such a transposition of the poems would give rise to and require many alterations and interpolations, is but too evident ; and whether this mode of accounting for them be or be not correct, the fact of their existence remains undisputed. Notwithstanding this, however, there remain, in the "Iliad" especially, a strongly marked individuality of intellect that could not proceed but from one great mind, and many indications to prove that they could not have been composed very long after the date of the events narrated ; for we find in them a perfect knowledge, not only of the ethnology but of the geography and history of the Greeks, at a period prior to the return of the Heraclidæ, such as never could have been

exhibited by a Dorian at any period, nor by an Ionian in Greece long after that event, nor even in Ionia, among the expatriated Peloponnesians, after the traditions of their former home had lost their freshness and become dimmed by distance. Still, notwithstanding the many indications of the proximity of the events to the time of the narrative, it is scarcely probable that even a poet could introduce the supernatural so frequently in recounting the actions of men whom his immediate ancestors might have known, and the introduction of god-born men and women was scarcely possible before time had lent its obscurity to their real pedigrees.

Half the difficulties that exist regarding the poems of Homer have arisen from the critics reasoning from the state of affairs in European Greece, instead of turning their attention to Ionia, whence they came. With regard to the question, for instance, as to whether the poems were originally reduced to writing or not, it is easy to answer, That the Greeks have no authors previous to the era of Cyrus, and did not, and perhaps could not, write at the time of Homer; and on these premises it is undoubted that those were merely preserved to us by the memories of the rhapsodists. It is tolerably clear, however, that men do not invent alphabets merely for amusement; and when we find an Asiatic people introducing into Greece, three or four centuries at least before the time of Homer, an alphabet so perfect that after three thousand years of constant use it has scarcely been improved, and when the evidence is recollected regarding the tables of the Mosaic law about this period, and the Book of Job,* besides the evidence from Babylon and India, nothing can be more probable than that writing was currently practised in Asia long before Homer's time, and probably even in Greece before the Dorian invasion, which restored barbarism to that country and obliterated every trace of the Asiatic civilisation which the Pelasgi had introduced.

It is, moreover, almost impossible that these poems, if merely transmitted by memory, could have retained that archaic simplicity and freshness they even now exhibit, that perfect portraiture of the times described, and that total absence of all allusion to subsequent events. If we only look how utterly unconscious all uneducated nations are of

* Those who deny Homer the use of writing materials, should of course be prepared to apply the same reasoning to the Pentateuch and the Book of Job, and admit that they are forgeries or transmitted to us merely orally by memory. I have not yet heard the absurdity broached.

the value of relics of antiquity—how Egyptian, Grecian, or Gothic architects pulled down, and altered, and improved the works of their predecessors—and how incongruous their additions always were, we cannot but suppose that in that early period similar improvements must have been introduced into these works, which we could as little fail in detecting as we can the Gothic additions to a Norman cathedral. When, however, they were, to use a very modern expression, republished in Greece about the sixtieth Olympiad, they had become venerated for their antiquity, and their educated editors respected the words of the great poet, and merely presented them in a shape and arrangement more accordant with the forms of the time, though necessarily forced, by the nature of the task, to make those alterations both in the language and structure of the text which we now find in them.

Besides these great works, this age produced the poems of Hesiod, which, though written by a Cadmean, probably, at least a century after the time of Homer, might fairly, if we were allowed to judge from their inartificial structure and rude simplicity of style, be ascribed to a period of two or three centuries earlier; and as such they form, perhaps, the best means of comparing the advancement of Greece and Ionia at the period of which we are speaking.

But neither of these was the earliest poet of the Greeks, and though we scarcely know their names, still less their works, the names of Orpheus, Musæus, and others, indicate the existence of a mass of lyric or narrative poems at an early period, which, though now lost, were well known, and most of them reduced to writing, as well as the works of the two great poets, at the period when the Dorians began to emerge from barbarism and to turn their attention to something more ennobling than mere war and conquest. When they awoke from that long dark night, they awoke to find themselves surrounded by an enchanted land of poetry. The whole early history, not indeed of their ancestors, but of those who inhabited before them the country they now possessed, had become a romance of heroic deeds done by heroic men. Every spot around them had been sanctified by the presence of a god, every city had its long line of heroes, every fountain its nymph, every wood its dryad, and even the sea was peopled by the bright imaginings of their poets; and thus not only a native system of theology and mythology had almost insensibly sprung up among them, but their whole history and country had become idealised. And these poems contain a mass of maxims and examples which

became to them a common law, as important as the written one; for Homer and Hesiod were as truly the lawgivers of their race, and the founders of Grecian polity, as Moses or Mahomet were of those of their countrymen.

I have insisted on these points longer than perhaps may at first sight appear necessary, but it would be difficult to say too much on what forms the groundwork of the whole Grecian system, and more especially of their arts, which, without exception, were nothing more than illustrations of their poetry—attempts to embody and reproduce the imaginings of the poets in some other form which would bring them more distinctly and powerfully before the eyes of their countrymen.

It is this that forms the leading distinction between Egyptian and Grecian art. In the former style the work, whether it be of architecture, painting, or sculpture, is all in all to itself. The paintings on the palace and the temple walls are not illustrative of the annals of the king's life that founded it, but are the history—the national record itself; the paintings in a private tomb are the biography of a man who left no other record; and every mythological subject, whether a statue or a painting, is meant to be complete in itself, and to tell its whole tale by a simple appeal to the senses.

In Greece, on the contrary, it would be as difficult to point out a work of art that did not refer to the written book, as it would be to find one in Egypt that seemed to require such assistance. In Greece, no work of art can be understood or appreciated unless we know the myth or the action it is designed to personate. What the poet expressed in words, the artist represented in a more sensual and tangible form in marble or in colours; and in this respect even the drama appears but a combination of the two methods,—using words as a poet, and at the same time presenting to the audience a representation of the scenes in the persons of his actors: but again, this spoken and acted picture is but an embodying of the tradition, or personation of the epic.

When I said above that the Egyptians practised long before the Greeks every art they ever knew, the expression must be taken as usually applied to all those arts which are the result of mechanical processes; for though the assertion may appear unfounded that they were ignorant of the divine art of poetry, at the same time I believe it would be impossible to prove that they ever knew or practised this art to any extent. Still, that a nation who we know were so fond of music,

and brought musical instruments to a perfection that the Greeks never surpassed, should not have possessed songs to sing to them may appear paradoxical, if not impossible. Indeed I cannot doubt that they did; but it must have been a mere lyrical expression of joy or sorrow, or a picture of domestic life, or a heroic or affecting incident. We never find in their works the representation of any national hero, or the repetition of any favourite myth, which makes up nine-tenths of the productions of Greek art; all their representations are strictly confined to the present, to incidents of the reign of the king in which they were executed, and all told in the most matter-of-fact form: with them the present was everything; the past to them was past and dead, and the future had no hopes.

Though, therefore, they may have possessed poetry—and it is impossible to believe they did not—still it was not with them, as with the Greeks, the great and prevailing art, but must have been very subordinate to the others.

It would, perhaps, be difficult to express the difference between Egyptian and Grecian art more clearly than by saying, that to the arts of the former the Greeks added that of alphabetic writing and poetry; the former being, if not the parent of the latter, at least the instrument by which it is made permanent and becomes powerful. Without the alphabet, Grecian art could never have been much more than an elaboration of the Egyptian art following in the same track, which is the only conceivable one for a hieroglyphic people; but that at once freed their art from all the trammels that hampered the other, and, emancipating it from all the conventional symbolism necessary in Egypt to express the idea, left it free to undertake the noble task of illustrating the poem, and imitating and embodying poetic nature.

To these new elements which the Greeks added to the knowledge of the Egyptian, we have added the art of printing and the science of induction, neither of them less important than this acquisition of the Greeks, and producing as distinct and positive an influence on our arts as those did on theirs, and one, perhaps, more powerful, for all that is good or great, if we could appreciate its force, or would use it as we should and might do. But of this hereafter.

CLIMATE AND RACE.

These circumstances were, perhaps, sufficient to mark the form and trace the course which Grecian art must have followed. But besides these there were many other circumstances which contributed to make it what it was in the days of its splendour, some of which, though most distinctly secondary in themselves, have by some authors been elevated into almost primary importance. Among these may be enumerated the climate, which, though not so perfect or luxurious as that of Egypt, was far more exhilarating, and instead of tending to enervate, as the latter always must have done, was sufficiently rough and cold to invigorate and strengthen, while it was at the same time so genial as at times to steep every object of nature in harmony and beauty, and to awaken all the softer emotions of the human heart. In harmony with this was the beauty of the scenery, which, so far as my experience extends, was unsurpassed by any in the world. For nowhere are land and water mixed together in such just proportions; islands and bays break the monotony of the one, and relieve and repeat the beauties of the other; and nowhere do soft valleys fade more insensibly into sublime mountains: and when one of these was crowned by forests, and the other richly cultivated and studded with gardens and habitations, it must have surpassed all other lands, and almost does so now.

Another cause, and one of, perhaps, more importance than is generally supposed, was the happy mixture of a rude and hardy Dorian race with the softer nature of the Asiatic Pelasgi. For both in men and animals a mixture of races differing from one another, but not too distinct or far apart, is one of those circumstances which tend more to the improvement of species than any other, and in the history of the world all that is greatest and best has been done by the most mixed races of mankind: those who have hugged themselves in their own narrow and exclusive nationality, have invariably remained stationary or sunk into premature decay; and nothing could have, apparently, been more fortunate than the mixture of races that existed in Greece, where the elegance of the Asiatic was sustained by the vigour of the Dorian, and each lent to the other that quality without which neither could have effected much. Add to these a long career of unchecked prosperity and steadily increasing power, that gave them confidence in themselves, and a feeling of self-dependence that rendered them sufficient to themselves for all purposes,

without ever appealing to foreign aid, and that high hope in their future powers to accomplish everything, which can only arise from a past career of nearly uniform success.

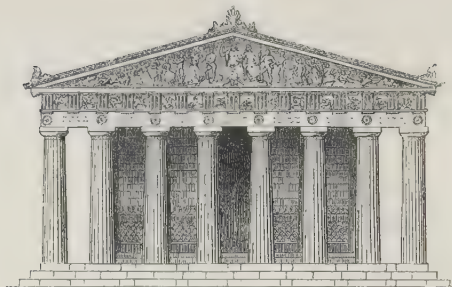
At first sight the turbulence of their democratic institutions, and the continued petty wars the little states waged one with another, might appear an element that should have checked their cultivation of art, or, at least, interfered with its course : but these, I believe, on the contrary, induced a feeling of individual responsibility and importance, which subjects of a more tranquil and established state scarcely ever arrive at ; and these wars, so far from destroying, seemed only to awaken their energies, and to prevent them sinking into a state of slothful indolence or luxury, which peace and security are only too apt to engender. When we add these causes to that mass of inherited poetry which was the daily food of their minds, and which every hill, and every stream, and almost every tree, seemed to repeat to them, it is easy to understand how the Greeks came to excel in art, and how they could scarcely fail to do more than had been done by previous or contemporary nations. Still I believe that even all this would have proved insufficient to give it that higher aim, that half-latent spirit of divinity, that pervades its creations, were it not for the great awakening of the patriotic feelings of the Greeks, when they were aroused to defend their native land against the Persian invader ; for history affords no record of a nobler and more generous struggle between the few and the free fighting in a just cause, against banded nations seeking unjust conquest at the command of a despot. Well might Greece exult in the result—well might each separate state pride itself on the part it had borne in that struggle—and well might she tax every art and every voice to give expression to her exultation and her pride ! No nation ever conquered in a purer cause, and none ever found a more undying record than she did in that art in which she sought to express her glory and her pride, and which within a few short years after the defeat of the Persians reached the culminating point of its perfection. It was then the reflex of the fight, it is now its noblest monument.

When we again see heroism as great, and patriotism as pure and as successful, we shall, probably, also see a higher art than even that of Greece, for we could now choose a nobler and better way of expressing our exultation than the Greeks could command. But do not let us, in the meantime, deceive ourselves,—money, and academics, and princely

patronage, will not produce such results as this: they had no part in the production of Greek art, and like causes will ever produce like effects. Purity of purpose, and nobleness of aim, only can produce what is pure and noble, and sordid or selfish aims must always result in mean or empty products.

Such arts as Greece produced in her best days can only be the result of a virtue as daring and as pure as hers then was, and of an expression as unsophisticated and as heartfelt as that in which she gave utterance to the fulness of her joy and pride.

No. 47.



Parthenon at Athens.

SECTION III.

ARCHITECTURE.

ALMOST the only remains of the architecture of the Greeks that have come down to us in sufficient preservation to enable us to reason on them with any degree of certainty are the temples, with which, like the Egyptians, they adorned every city in their native land. Several of the finest, however, have perished entirely. We have to lament the loss of the famous one at Delphi, of that, also, at Tegea; and of the great one at Olympus we can only trace the foundations with sufficient distinctness to know what it was. Still we possess in the Parthenon what all antiquity allowed to have been the noblest work of art the Greeks ever produced; and the Theseion,* the temples at Egina and Phigalia, the ruins at Corinth, Rhamnus, Eleusis, and Sunium, are sufficient to enable us to judge with considerable certainty of what the general character of these buildings was: for so far, at least, as architecture, properly so called, was concerned, they were similar almost to monotony. In sculpture and painting they, no doubt, varied to a very considerable extent, as that was their principal mode of expression, and its display the object for which they were built. But of these, particularly the latter, we have now hardly any means of judging, and must be content

* I retain the usual name for that temple, though I have myself no doubt but that it was the temple of Mars; and that the heroum of Theseus was a square or circular building, certainly not an oblong one, for that was impossible in a tomb or heroum, or anything so Pelasgic. As I

have not, however, used this temple as an illustration, I shall not enter into so knotty a point here; but any one who has followed the reasoning in these chapters will perceive the distinction between a heroum and a temple with sufficient clearness to see the difference without further insisting on it.

with the mere masonry: but even that is so perfect that we can now scarcely comprehend it, and have little hopes of equalling, far less of surpassing it.

If to these Grecian temples we add the remains of twelve temples in Sicily, and three at Pæstum—all of the Doric order, of course, as they were the production of the Dorian colonists; and of some six or seven in Ionia—in like manner all of the Ionic order,* as the production of the semi-Pelasgic Greeks, all of which still remain in sufficient perfection to enable us to restore their plans, and most of their masonic details, it must be allowed that, so far as architecture alone is concerned, we possess more than we have lost, and quite sufficient to enable us to arrive at definite conclusions regarding the general ordinance of the temples of Greece.

The case, however, is widely different when we turn to other monuments. Of their domestic architecture we know singularly little, no single monument having survived to our time; and what few descriptions or incidental allusions can be gathered from the writings of their authors are so indistinct—or, at least to us, so unintelligible—that nothing certain can be predicated regarding them. Perhaps the best mode left to us is to frame a careful analysis of the domestic edifices of the semi-Grecian city of Pompeii, where, by carefully separating what is Roman from what is Greek, we may restore, to a certain extent, the buildings which the Grecians erected in their own country; but only imperfectly even then, and without that purity which, from what we know of their religious edifices, we feel must have pervaded everything they ever built.

We are, perhaps, even more unfortunate regarding their municipal buildings, no remains of an Agora or Lesche belonging to the great age having escaped destruction; and of their theatres, which from their form and mode of construction are among the best-preserved buildings that remain, unfortunately we only possess the seats, or audience part, with the foundation of the scenium: so that, though they are of infinite value for illustrating the drama, the loss of the decorations of the stage—which, in fact, was the only artistic part of the composition—removes them at once from that class of buildings to which the student would refer who wishes to judge of an effect, or to see what success attended

* There is, it is true, a Doric temple at Assos, and some remains of the order elsewhere, but they are insignificant, and little known.

the artist in his attempt to produce the beautiful. It is true that some of the great theatres in Asia Minor still retain enough of their scenium to enable us to restore it to its original form ; but in all instances where this is the case the decorations turn out to be of the Roman, or, at least, very late Grecian period ; and though we may look upon it as a modified transcript of the production of the great age, it still will not, without much study at least, enable us to judge of what these buildings then were.

For reasons stated above, it would, of course, be vain to look in Greece proper for any remains of tombs of much magnificence as architectural objects. In the Dorian states they did not, I may almost say could not, exist. At Athens something of the kind probably did, and steles and sarcophagi, characterised with the elegance and grace which accompanied all they did, have been found, and more yet may be brought to light. In Asia Minor, however, to which country the Pelasgi emigrated, such things we know did, and, as shewn above, many still do exist, confirming the importance, which from history we should assume to have belonged to this mode of architectural display among the Pelasgic races.

The Hellens, however, were even less remarkable for their engineering, or works of public utility, than for their tombs. It is true we find in Greece some singular tunnels for draining lakes, and other hydraulic works of importance ; and some roads cut with great skill and perseverance through difficult places : but all these were anterior to the Dorian invasion and were the works of the Pelasgi, and proofs of the subterranean propensities of that race, who both here and in Italy were the engineers who executed all the ancient works of public utility we find in either country, and who taught the Indo-Germanic races what little they knew of these utilitarian arts. In the semi-Etruscan Romans they found apt scholars, who surpassed the works of their masters ; but the Greeks were content to wonder at what they saw, and invent fables to account for the existence of what they cared not to imitate.

One Doric bridge remains at Xero Campo, quoted above, and it is remarkable more on account of its singularity than its art. There may have been others, but they could not have been either numerous or splendid, or we should have heard more of them.

Even in works of defence the Dorians must yield the palm to the races that preceded them ; for though the walls of Messene and Athens

were works of considerable magnitude, they are far from remarkable, considering the age at which they were built, though in extent they certainly surpass those of Mycenæ or Tyrinthus. The older works, which the Pelasgi erected, or which the Hellens built under their superintendence, are even now, in spite of their greater age, the more perfect and more wonderful works of the two.

To the temples, therefore, we must confine what remarks we have to make on this part of the subject, and, fortunately, it is one not surrounded by any insurmountable difficulties, and is, without a single exception, the most pleasing that architect or antiquary ever undertook to expatiate upon. For though surpassed in size, and in richness and variety of effect—perhaps, also, in power—by the temples of Egypt and the cathedrals of the middle ages, no combination of stone and mortar ever shewed that intellectual power over the material, and that perfect adaptation of the means to an end which they display, and that purity and perfection in every detail which characterise these beautiful relics of the past.

AGE OF DORIC TEMPLES.

With two exceptions the dates of all the Doric temples of Greece are ascertained, with all the precision requisite for an inquiry of this sort, for they all belong to the great period that elapsed between the Persian invasion and the Peloponnesian war. The exceptions, however, are singularly important to the history of art, and it is very unfortunate that we have not more data to assist us in the inquiry.

The first exception is the temple at Corinth, which all allow to be the most ancient specimen of the Doric style in Greece; but as no classic author has mentioned it, and there is not even a local tradition to assist us, we are left entirely to the style to judge of its date, and even then an approximation can be made only by estimating, from its appearance and from the history of the country and city, the time that might be necessary before the style could reach even this degree of perfection, and, on the other hand, the time that might be required to introduce the changes we find to have taken place in the style when employed in the building nearest in time of which date is ascertained. With such slender grounds to

build conclusions upon, it would be easy to write a great deal, but very difficult to convince any one that any assumed date was the correct one. I will, therefore, here only say, that from the history of the city, as well as the appearance of the building, I would ascribe it to the reign of Cypselus, which I think cannot be far from the truth. We have no hint in history of any acts of splendour, or any patronage of art, by the Bacchiadæ; but we know, on the contrary, how zealous a patron Cypselus was, and how likely an usurper would be to attempt to increase his popularity by erecting a temple more magnificent than was ever known before in the city he governed.* Its rude proportions would prevent a more modern date being assigned to it; still it does not, in my opinion, differ so much from the temple at Egina, or the Theseion, to require being placed at a more remote date.

The other temple whose date is not known, is that of Jupiter Panhellenius at Egina. It probably, however, owes its rise to the period when the little island on which it is built was at its point of greatest prosperity, in the middle of the sixth century before Christ, and must, I should think, have been completed before the power and prosperity of the state was crippled by the rising greatness of Athens, which took place about the year 510 B.C.; such a date is indicated more especially by the style of the sculpture, which must have been subsequent to the architecture, and still is so inferior to the Athenian style, that it is difficult to believe but that more than half a century must have elapsed between the period of its completion and the execution of that of the Theseion, particularly as these were years not of continual peace and prosperity, but of war and struggles for existence: so that, altogether, I am inclined to think the true date of this temple will be found to be about 560 to 530 B.C., or nearly exactly intermediate between the Corinthian and earliest Athenian examples.

If, however, history affords us little assistance in determining the dates of these buildings, she is even more hopelessly silent when we turn to the colonies, and it is only by using imperfectly ascertained dates to determine others still more uncertain that we can even approximate to truth. There is not, however, much difficulty in any true style of architecture in ascertaining the relative age of buildings in the same country, for in

* If the Cypselidæ were Hellenic, and the Bacchiadæ Pelagic, this would go far | to settle the extreme point of antiquity to which we could assign it.

all we find improvement going on steadily to a certain point, and then decline; and though there is some danger of mistaking a building on one side of the culminating point for one on the other, this very rarely occurs, and with careful study the point can be determined with very tolerable accuracy.

It is not a little singular that colonial Sicily should possess now the remains of a greater number of splendid temples than we find in the mother country; for there are more temples there than we can trace the existence of in the whole Peloponnesus, or in the whole of Greece exclusive of that peninsula.

The principal of these are situated where once stood the flourishing city of Selinus, a place scarcely mentioned in history; yet we are safe in asserting that no city of Greece, not even Athens, possessed such temples as these. There are there four hexastyle temples of the second class, one smaller, and one octastyle,* the only one we know of, except the Parthenon, but designed on a much larger scale than even that famous temple; three of them are situated side by side on the hill that formed the Acropolis, the others on a lower elevation where the city stood. The oldest is, undoubtedly, the centre one of the first group, which, from its sculptured metopes—discovered by Messrs. Angell and Harris (woodcut 65)—must be of very considerable antiquity; for they are far more rude than those of the Egina school, though the architecture of the temple shews a considerable advance on the Corinthian example. The next is the small one between this and the sea; the third, the centre one, in the town, where again we meet with metopes, this time very similar to the Eginetan sculptures: so that, even allowing for the less perfect art of provincial sculpture, they probably belong to nearly the same period. The one between this one and the sea comes next in point of time; the fifth is the hexastyle to the north of the oldest in group in the Acropolis; and the last is the unfinished octastyle in the city, which, notwithstanding its splendid dimensions, shews such a decline from the pure Doric style as to mark at once its inferior antiquity.

These buildings, though all of the Doric order, and all (except the

* The best illustrations I am acquainted with of these temples are contained in the unfinished work of Messrs. Hittorff and Zanth on the subject; less perfect are

those in that of the "Duca di Serra di Falco," and painfully incorrect are those in Wilkin's "Magna Græcia."

last) nearly on the same plan, still, when carefully examined, shew a difference and a progress, which clearly point out that no two of them could have been erected simultaneously; if, therefore, we take the time that elapsed between the foundation of the colony, B.C. 636, and its destruction by the Carthaginians, B.C. 410, and divide it by the six examples, we get a rough approximate guess at the age of each, which closely coincides with what I have stated above, from a comparison of their styles with those of the Grecian examples.

It is not, however, probable, that the great hexastyle could have been commenced till some time after the foundation of the colony, nor that a second temple could have been undertaken soon after its completion, even so splendid as the smaller one; so that the last four, probably, fall within the fifth century before Christ, while the octastyle, from its unfinished state, was, probably, commenced not long before the Carthaginian campaign.

On the same southern coast of Sicily, where the city of Agrigentum once stood, we find the remains of three temples, the age of the largest of which is ascertained better than that of any temple in Sicily; for we know from Diodorus* that it was commenced under Theron, about 480 B.C.: but so immense was the undertaking, that, after seventy-five years, when the Carthaginians destroyed the city, it was still unfinished.†

The two smaller hexastyles are so similar that they evidently belong to the same age, which was, probably from their style, the one that preceded the commencement of the great one, or from 500 to 480.

At Syracuse there are the remains of a fine hexastyle, which has been singularly preserved by being converted into a church, under the name of Santa Maria delle Colonne. This has usually been assumed to be the temple of Minerva, so famous from Cicero's "*Oratio in Verrem*," but I think without much foundation; for there are nearer the shore the remains of a larger and, consequently, more splendid temple, which from Cicero, as well as from the custom of mariners saluting the shield that adorned its top, I should think much more likely to be the temple in question than the smaller one in the centre of the town.

At Egesta there is another Doric temple, ruder than any of those above mentioned, and unfinished, which gives it an appearance, at first

* Diodorus, xiii. 12.

† See woodcuts 59 and 60, further on.

sight, of great antiquity; but on examining its proportions, and such details as have been completed, I cannot find anything to justify such a conclusion, but would feel inclined to ascribe it to the same age as the two smaller hexastyles at Agrigentum.

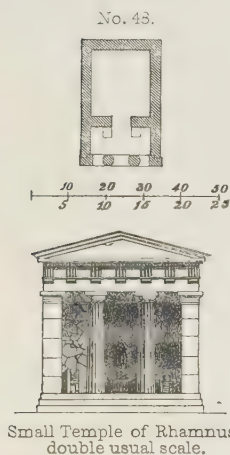
Pæstum, or Posidonia, possesses three fine temples; but, notwithstanding their proximity to Rome, and although that city became a Roman colony at an early date, we have as little to guide us as to their age as we have to those in Sicily. The only pure Greek temple, however, is the greater hexastyle; which, I think, is certainly not so ancient as the oldest of Selinus, and probably, therefore, belongs to the most flourishing period in the annals of the arts, or about 550 to 535. The two others are of much more difficult determination, for one of them is enneastyle, and with a row of pillars at least half-way down the centre. That such a building could have been built by any Greek, even in the colonies, for a temple, I look upon as impossible, and so most antiquarians have thought, but they have been unable to assign it any probable use or origin; and, unfortunately, neither the drawings of Major, Degodetz, nor Wilkins are to be depended upon, each having filled up the blanks according to his own hypothesis of what they should be. My own belief, however, is, that it will be found to be not a Greek edifice at all, but a double or treble-celled temple built by the Lucanians, who possessed the city from B.C. 341 to 274, and who, in erecting this building, copied, but very imperfectly, the Grecian order they found in the city, and in doing this they have deviated further from the true spirit of the Doric than in almost any other example I know of. Contemporary with this is the smaller hexastyle, which may have been erected by the Greeks who remained in the city during the Lucanian domination, during which time it seems to have been almost as flourishing as at any previous period.

In Greece itself, after the great civil war, we find, when the cities turned their attention to the building of temples, that they adopted almost universally the Ionic order, and what few specimens are found of Doric, such as the portico of Philip at Delos, the temple of Jupiter at Nemeus, or the portico of Augustus at Athens, that the spirit and beauty of the order was lost, and that it had become lean and poor.

PLANS OF DORIC TEMPLES.

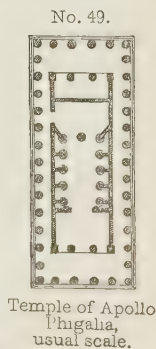
The forms of the Doric temples of the Greeks are neither various nor complex; so little so, indeed, that if we were to judge of their merit by the standard of mere technic architecture, it must be decided that the Greeks possessed very little invention, and shewed fewer symptoms of progress than almost any other people we know of. The fact, however, was, as I shall afterwards attempt to explain, that the architecture of their temples was in reality only a framework for the display of the higher phonetic arts of sculpture and painting; and they studiously avoided, in consequence, the introduction of any novelty that might attract attention, or interfere with the pre-eminence they wished to assign to the more important arts.

It was in consequence of this feeling, that the plan of almost all their

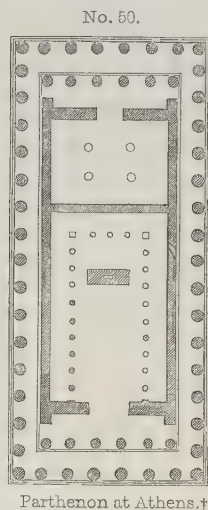


temples may be said to be the same, with only such variations as were requisite in consequence of increased size; the smallest being that of a cell with a small porch of two pillars in antis, or between two square piers at the termination of the walls of the cells, as in this example (woodcut 48), taken from the smaller temple at Rhamnus, in Attica.

The second form consists of a duplication of this very simple one, by placing two such temples back to back, having thus a portico, distyle in antis, at both ends, as in the small temple of Diana Propylea at Eleusis: the third, surrounding this by a peristyle, which from this disposition necessarily contained six pillars at each end, and twice that number, more or less, on the sides. This is by far the most common form of Greek temples, and was that of the splendid one of Jupiter at Olympia, which, though only hexastyle, was nearly as large as the Parthenon (90×217 feet). Generally, however, the Greek hexastyle temples, such as the Theseion, that of Egina, or this one at Phigalia (woodcut 49), were only about one-fourth of this size, or about the size of modern English parish churches; but, notwithstanding this, they had sufficient art to redeem these limited dimensions, and make them quite sufficient for all the purposes of architectural effect.



The third form of Doric temples was octastyle, of which only two examples are known; of these, by far the most famous is the Parthenon at Athens, which may be described as a temple with hexastyle porticos at each end, surrounded by an octastyle peristyle, the side colonnade of the interior temple being, in this instance, replaced by walls, so as to give the greatest possible extension to the cell of the temple, which here was wanted to accommodate the works of high art with which it was intended it should be filled. At Selinus, however, where no such objects existed, the cell or inner temple is only tetrastyle, and the additional space thrown into the external porticos; so that, notwithstanding its immensely increased dimensions* (358 × 164), and its covering more than twice and a half the space occupied by the Athenian temple, the width of its cell is very nearly the same.



There are, besides these, two or three exceptional temples, such as the enneastyle at Pæstum (if that be a Greek temple), the famous one of Ceres at Eleusis, and of Jupiter at Agrigentum, of both which latter ones plans are given further on.

I have before (page 224) hinted my belief that the Greeks borrowed the peristylar form of temple from the Egyptians: it is, at all events, quite certain that such buildings were used on the banks of the Nile before even the walls of Tyrinthus were built, and nearly a thousand years before the erection of the oldest example of a colonnade found in Greece. Until, therefore, some evidence, direct or indirect, can be adduced in support of the Grecian claim to originality, it is at all events more logical to assume that it was borrowed from a country from which many of the Greek princes emigrated, and with which the Dorians had at all times constant and familiar intercourse, and from which they borrowed half their arts and institutions. I do not, of course, mean to assert that the Greeks borrowed it merely with the idea of copying an Egyptian form because it was used in that country, or because they admired it there:

* Its dimensions are almost identical with those of the temple of Jupiter at Agrigentum (see woodcut No. 59), and those of the temple of Jupiter Olympius at Athens, No. 64.

† From a beautifully correct plan by Mr. Geo. Knowles, containing all the recent discoveries.

they must have had some other motive than this, and must have found it adapted to some use which they could not so well supply without it. To me, the use appears to have been double: in the first place, to get a beautiful external framing to their temples, combining light and shade with a pleasing perspective, and such a repetition of similar parts and forms as would give the greatest possible value to the dimensions of the building; for it is evident to any one who has studied the question, that a peristylar temple, particularly one arranged as the Greeks arranged theirs, would appear nearly twice as large as one of similar dimensions with only plain unbroken walls.

Another motive, however, probably, was even more important than this, and that was to shelter from the inclemency of the weather the paintings with which their walls were covered, and to do this in a manner in which the framing of the pillars should add to the effect of the paintings, and the painting at the same time should relieve and give effect to the columnar ordinance. Any one will at once perceive how much relief and effect a coloured cell wall would give to a plain fluted column projected against it; but it requires a little knowledge of the form of Greek painting to see how the continual interruption of the columns would assist the effect of the pictures. One of our paintings would be utterly destroyed by it, and so would one of the great battle-pieces of the Egyptians; but any one who studies Pausanias's description of the paintings in the Lesche at Delphi, or anywhere else, will at once perceive how such a grouping of various and incongruous objects must lose in effect by being seen at once: whereas, to a spectator from the outside, the pillars performed the office our picture-frames do, of separating the groups into convenient portions, so as to allow of each being contemplated singly; and at the same time, by a slight change of position, the spectator could connect it with the next on either side, so that the adornments of the temple wall might either be considered as one picture, or twenty, or one hundred pictures, thus combining multiplicity with unity to an extent our modern arts, with all their technical perfection, have not yet reached.

DORIC ORDER.

The same remarks apply with equal force to the invention of the Doric column. It is quite undisputed that pillars very much like the Doric order do now exist at Beni Hassan, in Middle Egypt (woodcut No. 2), and in Nubia, and that they were cut out of the rock there for even a longer period before their being used by the Greeks than can be urged regarding the peristyle; and it seems, therefore, very absurd to suppose a second invention of an old and familiar form. At all events, be this as it may, I feel quite certain that the modern theory, or that which derives the form of the Doric column from that of the trunk of a tree, first assumed to have been used to support the roof, is quite untenable. No carpenter then, or even now, could be so absurd as to place an unsquared trunk on a stone step, and then, instead of framing it into the epistylia, place an abacus on it, so as entirely to disconnect it from the thing it supported, and render the whole arrangement so constructively absurd, that the first breeze of wind must have unroofed the temple and blown down the columns. Had the whole been of wood, the pillars would have been squared if the epistylia were, or both would have been left rough; or, at all events, the pillar would have been let into the ground, and framed into the thing it supported, as it was at Persepolis, not separated from it by an unmeaning and worse than useless member; and we should now, in the stone copy, have been able to trace this framing together of the parts, as we do in the Lycian and Indian rock-cut examples, which retain their wooden forms for centuries after they had been copied in stone. This we are now able to do in the roof, which is, undoubtedly, a copy of a wooden construction; and it is this, apparently, that has misled architects: they have not sufficiently distinguished between the roof, which was of wood, and the support, which, like the walls, must either originally have been a brick or rubble pier, supposing it to be original, or a copy of the Egyptian pillar,* which I believe it must have been.

The annexed woodcut (No. 51) may serve to explain, perhaps, better than any view from a temple itself, the different parts that compose the

* These pillars at Beni Hassan do not appear to me to be copies in the rock of stone pillars, such as are found at Thebes, but of brick pillars, such as one would

expect to find in Lower Egypt and the Delta, where stone was rare, and where we know bricks were used from the earliest age.

Doric order: it is taken from a sketch of the press-house of a native indigo factory on the banks of the Ganges, where the style is universal, and from finding all the parts of it cut in the cave-temples, we may safely assume that it must have prevailed from a very remote period.

No. 51.



Indigo Press-House.

In these buildings the piers are always of brick, generally square, though sometimes wider in the direction of the length of the building than in the other direction: in some ornamental buildings they are octagonal, and sometimes rounded, in which case they are always plastered or stuccoed. On the top of these is placed an abacus, sometimes of wood, but generally composed of two tiles, of about 18 inches by 12, and two inches thick, thus making it 18 inches and 24, corresponding with the different dimensions of the pier: their use is, in the first place, to protect the pier from the weather, as a coping; and secondly, to throw the weight of the beams more equally over the mass. On them is placed a large squared beam—represented by the architrave on the Doric—which again bears the rafters, one of which always comes over the pier: sometimes there are two between each pillar, though more generally only one, owing to the weakness of the other arrangement; and unless a disproportionately strong architrave is used, it is generally found more economical to use more piers instead. At right angles to these rafters are placed the “burgars,” or purlins, according to the width of the tiles used for roofing: in slight outbuildings, Europeans sometimes use 18-inch tiles, placing, of course, the burgars eighteen inches apart, but more usually 12-inch tiles are used; and in native houses and older buildings, the burgars, which are three inches, or one hand-breadth square, are not placed more than six inches apart, and 9-inch bricks used to cover them: over these tiles, in flat roofs, a layer of concrete is placed, though where there is any slope in the roof, as in the present instance, it is usual to put merely another layer of tiles, only taking

care that the joint of the upper does not correspond with that of the lower; and with a layer of concrete between, and the joints carefully cemented, this is found sufficient to resist even tropical rains.

It is evident that in these Indian buildings we have all the parts of the Grecian orders, and from some such style I conceive the Greeks must have elaborated them: it required only the substitution of a circular Egyptian pillar, and a repetition in stone of what is here in wood, to complete the Doric order. Yet it is not a little singular that the Dorians should have rendered the ends of the rafters so important in their triglyphs, but have omitted the purlins altogether, though they must have used them,—a circumstance, perhaps, owing to their only appearing on the slope of the *cœtoi*, and not either at the sides or in the horizontal cornice at the ends. The Ionians, on the contrary, omit entirely to notice the rafters, but repeat the purlins all round in the form of dentils.

Another circumstance of interest is, that neither in ancient Egypt nor India, nor, indeed, in all Asia, can I trace the smallest indication of a triangular-framed truss for a roof, which it is evident, from the form of their temples, that the Greeks must have used very early; and this truss, though always supported at four, and sometimes at six, points, is so important a feature in architecture that I know of no principle—except, perhaps, the introduction of the arch—which has had such influence on the form of architecture as it had, and I am not aware of any circumstance which militates against our ascribing its invention to the Dorians. It is just such a one as might be expected in a well-wooded country like Greece, where the people either abhorred or were ignorant of the use of the arch, and still wanted to roof larger spaces than could be done by single stones, or by simple beams of wood, without great inconvenience and great danger of their sinking and destroying the form of the roof; and where, at the same time, the climate was so rainy as to require a roof more sloping than was necessary in Egypt or any such climate.

Still it is probable that the Greeks might have concealed—or, at least, avoided—such a form externally, either by hipping the roof, or some such expedient, had they not been familiar with the triangular openings over the doors of the Pelasgi; and I cannot help looking on the triangular pediment of the Dorians as a descendant of this Pelasgic form, and, that the Gate of the Lions at Mycenæ (woodcut 46) may, in consequence, be considered the first sculptured pediment in Greece.

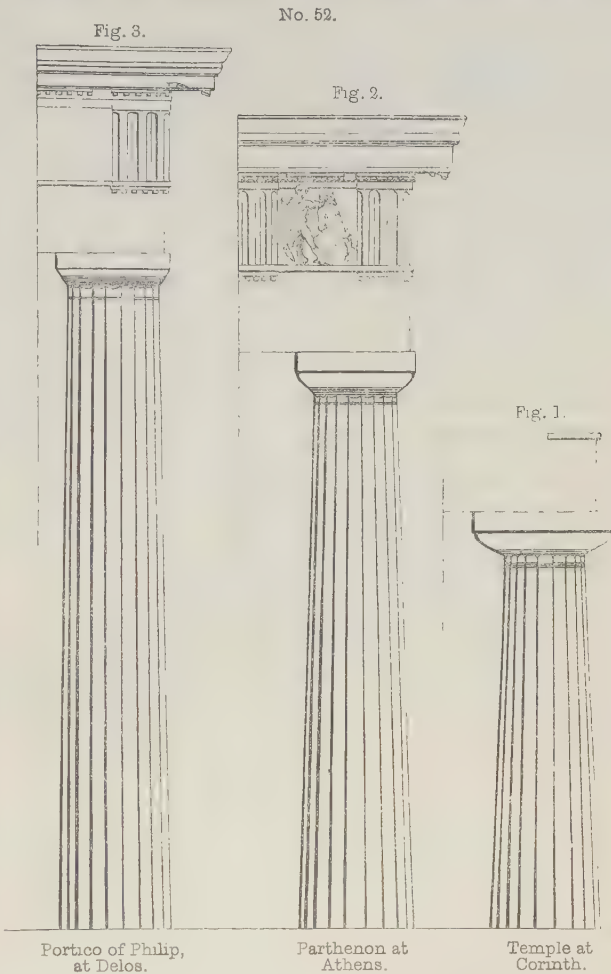
The difference between it and a Doric temple end is, indeed, great ; but to me, at least, it looks very like the germ of what we afterwards find.

The above woodcut (No. 51) may, perhaps, also serve to explain another peculiarity of some Grecian buildings, which has not hitherto been accounted for ; for whenever they did not choose to use a truss, they seem to have adopted the same expedient as is used in India, where no truss exists, of supplying its place by a central range of pillars, either higher in themselves than the side ones, or their height eked out by a dwarf column or attic above their entablature.

This mode of construction is that adopted in the enneastyle temple at Pæstum, and in all these buildings called *incantadas*, from one found at Salonica, illustrated in Stewart's "Athens," vol. iii. p. 51, which I believe to have been nothing more than a central range of columns, heightened so as to give the requisite slope to the roof without the introduction of a truss.

If there is little variety of invention displayed in the form of the Doric temples, there is still less in the order, which remained nearly the same from the time of its first introduction till the latest period ; the only variation being a gradual attenuation of proportion and increase of height, so regular as to form an almost certain indication of the age of the buildings, the oldest attempts being almost Egyptian in strength and proportion, as would almost certainly be the case with men who were, for the first time, substituting so heavy a material as stone where they had before only used wood. But gradually they found out that perfect stability might be ensured with far more lightness and elegance ; and as eternity was not the great nor even the predominant idea that governed the design of their buildings, they pursued this course till they at last destroyed the effect of the order. In the Parthenon, however, we have an example where the exact and perfect proportion seems to have been attained between constructive stability and æsthetic elegance ; and as every detail is there executed with the utmost mathematical precision, and all the curves are almost perfectly drawn conic sections of the highest order, the building combines in itself more technic and æsthetic merit than any other of its size with which we are acquainted. If its dimensions were doubled or quadrupled, its technic merit might have been proportionably increased, but at the expense of higher qualities ; indeed, I question if an increase of size would not have made it less perfect than it is.

The annexed woodcut (No. 52), shewing three Doric columns drawn to the same scale of modules, will serve to illustrate the changes that took place in the order during the three centuries it was used in anything like perfection by the Greeks. About two centuries elapsed between the first and second examples, during which it was gradually tending towards perfection, and one century between the second and third, during which it was more rapidly deteriorating towards the lean and wretched order of the Romans, into which it eventually sunk.



Perfect, however, as the Doric order is, even as a masonic mode of expression, this is not either its principal aim nor its greatest merit; and, to judge of it fairly, it must be considered with reference to its capabilities of displaying and giving effect to the painting and sculpture, which were its invariable accompaniments, and formed a most essential part of the order in its integrity.

In every Doric temple the two *ætoi*, or pediments, were occupied by two great groups of sculpture, which really were its most important external features; and besides this, the happy division of the frieze into square metopes, by the introduction of triglyphs, enabled the artist to group his figures into any number of separate pictures, without forcing him to continue his subject all round the temple, or to invent some

conventional mode of separating one group or subject from another; while the external wall of the cell, as at Athens, or the internal one, as at Phigalia, enabled him to introduce any length of continuous sculpture that might be thought necessary. Single statues were provided for in the cell, so that there was no mode of sculpture that did not find a place here, and one where, indeed, it was felt to be wanted for the completion of the design. At the same time, all the mouldings of the order were so simple in form and outline that they required painting for their relief, and were exactly such as was best suited to display the elegance of such polychromatic decorations with the very best effect. As portrayed in our books, and imitated by our architects, the Doric order is, it must be confessed, cold and often meaningless; but used as the Greeks used it, it is the greatest triumph that material art ever yet achieved. There are higher arts, it is true; but have any of them ever reached anything which, comparatively, is so perfect in itself as this union of architecture with painting and sculpture as practised by the Greeks?

IONIC TEMPLES.

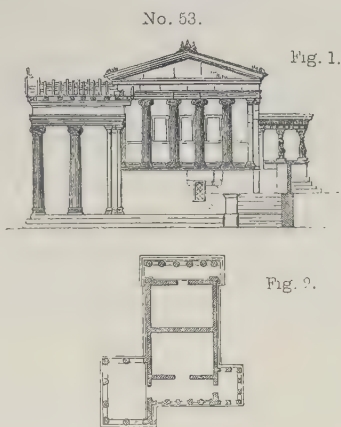
There is more variety in the plans of Ionic temples than in those of Doric form, and, generally speaking, more technic, and almost always more æsthetic beauty in their masonic forms, than in those of the simpler order. I am not aware that any small temple exists in this order like the small ones, distyle in antis,* of the Doric, though, from the form of the order, no arrangement would, apparently, suit it better, as concealing its principal defect, that of the capital having only two faces. This cannot, therefore, I conceive, have arisen from any architectural exigence, but, more probably, was some Pelasgic peculiarity, which was persisted in throughout. We have, on the contrary, tetrastyle porticos in this order, which are not found in pure Doric buildings. Though these are generally only found in propylæ, and buildings of that class, I do not know of any tetrastyle Ionic temple, except two at Athens, one of which is the little gem of Nike Apteros, in front of the great propylon of the Acropolis.

The most beautiful and important example of this order in Greece is,

* This arrangement, however, is found in tombs. See woodcut 34.

undoubtedly, the temple of Minerva Polias, on the Acropolis at Athens : it has a hexastyle portico at one end, and a repetition of this in engaged columns at the other, while the sides of the cell are unprotected by any peristyle ; these being peculiarities unknown in Doric buildings, and very far from being improvements here. There is, besides, a tetrastyle portico attached irregularly to one end, and a caryatide porch on the opposite side, both which being motivated—and, indeed, necessary additions, so far from offending, give meaning and effect to the whole design : but the poverty of the architecture of the main edifice seems a peculiarity of the style, and such as would not have been tolerated in a Doric building. Notwithstanding this, few buildings have met with more admiration than this, for the elegance of its plan and the richness of its architecture : but this, I believe, arises not only from the picturesque effect of the motivated irregularity above pointed out, but also from the fact that at the time it was executed the Greeks had learned to carve their architectural details instead of painting them. So far as the effect at the time of its erection was concerned, this mode must have been inferior to painting, but as it far surpasses it in durability, the carved ornament remains to excite our admiration, while the painted one has long since been washed off, and left only the naked moulding to suggest its completion.

If we may trust Pausanias's* description of the great temple at Tegea, it was externally of the Ionic order, which would seem to intimate that at the time of its erection Arcadia remained Pelasgic, in spite of the surrounding Doric states, and the time that had elapsed since that race was dominant in Greece. It is, however, to Asia Minor that we must turn to look for this order in its perfection, and even now we are able to trace there the remains of some seven or eight temples, one, at least, of which—that of Ephesus—surpassed any other temple which the Greeks or their cognate races ever erected there or anywhere else. Two of these—those at Priene and Teos—were hexastyle, and not much larger than the ordinary Doric temples of the same order, being about



Temple of Minerva Polias, Athens.

* Pausanias, viii. 45.

122 feet by 63 or 64 ; that at Magnesia—octastyle—was about as large as the Parthenon ; and one at Sardis, though of later date—probably Roman—was considerably larger. Those at Samos and Branchidæ were both decastyle and dypteral, as having two ranges of columns surrounding the cell, both of which are peculiarities never attempted by Doric architects ; in dimensions they are equal to the great ones at Selinus and Agrigentum, and as far as technic merit or magnificence is concerned they are, at least, four times greater than the Parthenon at Athens. All these, however, were surpassed by the “ Ephesian dome,” 425 feet long by 220 broad, and supported by 127 columns (including, I suspect, those of the cell or hypæthron), each 60 feet in height : not one vestige of it, however, now remains, and even its site is unknown.* As the most gigantic temple of the Greeks, we may regret this ; but the loss of the Parthenon of Athens, or even of the little temple at Phigalia, would have been an infinitely greater loss to art than this barbaric specimen of Eastern magnificence. We can easily restore its plan and elevation, and money would rebuild it, while we cannot yet comprehend the Parthenon, and no wealth can ever replace it.

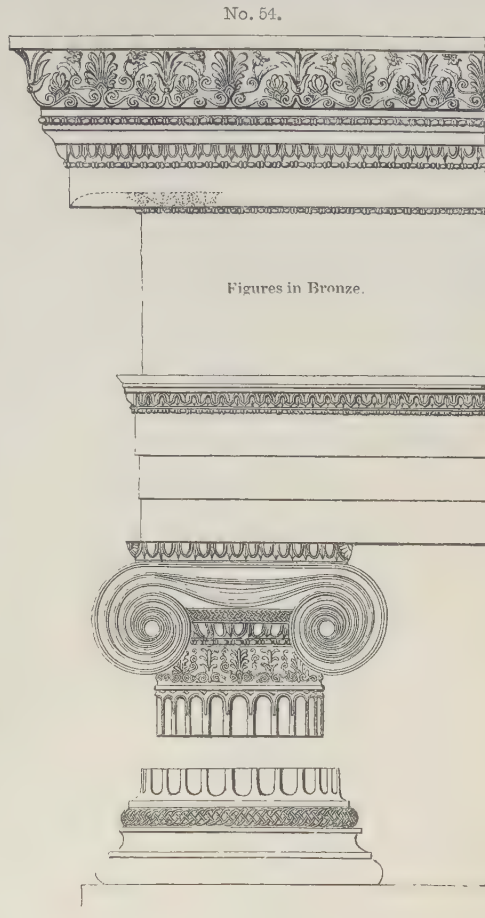
IONIC ORDER.

Even if some discrepancy of opinion should exist regarding the Egyptian origin of the Doric order, there can, I believe, be very little doubt but that the Ionic order is, as its name implies, of purely Asiatic origin. Were it not, however, for the existence of the ruins of Persepolis, it would not be easy to prove this directly, as all the other specimens of that order have perished, and we should have been obliged to have recourse to ethnography, and such incidental arguments as could be derived from the name and history of the order, to prove what is not clear from a mere inspection of the examples.

* Mr. Edward Falkener has lately returned from Ephesus, with complete plans of the city and all its public buildings, which are on a scale of magnificence that proves there is no exaggeration in the accounts of the temple, which scarcely does

more than match them. He has, also, I think, satisfactorily fixed the site of that famous edifice, but the want of encouragement may, I fear, prevent his giving the result of his inquiries to the public.

So far as the base, shaft, and capital of the pillar are concerned, the order is infinitely more like that found at Persepolis than any thing that can be traced in the Doric; but with regard to the entablature this is not so clear, but principally because we have scarce any examples of Asiatic architecture to compare them with, though in the rocks at Nakshi Roustam* we have an architrave with three breaks, and a dentil cornice very similar indeed to the Ionic; and at Pasargadæ, a base almost identical with that of the Ionic pillars at Samos. In both these instances the Persian examples are older than those found in Ionia: and even then it must be borne in mind that we are comparing the Greek order in Ionia with one found beyond the Tigris, whereas it is more than probable that specimens more similar to it did exist nearer at hand, and that it was



Ionic order of the Temple of Minerva Polias, Athens.

out of them that the order was elaborated. But, even with this disadvantage, I look on it as quite certain that the Ionic is merely an Asiatic order, treated with a certain Grecian feeling, as was sure to be the case when the Hellens obtained such influence in Asia Minor as they did after they had defeated the Persians, and stood forward in that great age as the greatest nation then existing; and as all the temples of which any remains exist in Asia Minor were erected after the time of the Persians, they are infinitely more Greek in feeling than they could have been had they belonged to an earlier age, and indeed must be looked upon as Hellenic adaptations of Pelasgic forms.

Unfortunately, nothing remains of the great Ionic temples of Asia

* Ker Porter's "Travels in Persia," vol. i. Pl. XVII

Minor but their columns, and we have neither their walls, nor, consequently, their doorways or windows (if they had any), in a state of sufficient completeness to enable us to restore them with certainty: luckily, however, the Ionic temple on the Acropolis supplies us with all the information we could require on the subject, for there the doorways are carved with an exuberance, and at the same time with an elegance, which enables us to understand the bronze or painted architrave of their Doric contemporaries; and they all possess the purely Pelasgic peculiarity of the sloping jamb,* which is more important to the ethnography of art than even the form of the order itself. In woodcut 39 is represented a Pelasgic doorway, whose lintel is so formed as to explain the peculiarity of the slight break in the architrave at the top of these Ionic windows, which seems originally to have been a purely constructive peculiarity, arising from the desire of having as light an architrave as possible, and discharging the weight from it by a false arch in the wall.

CORINTHIAN ORDER.

Of the three orders used by the Greeks, the Corinthian appears to be the most original, and the one to the invention of which they may most distinctly lay claim. It appears to have been invented at a time when, owing to the decline of pure art, they were no longer capable of executing the Doric order, with its integral sculpture and painting; and when they were tired of the intractable Ionic, with its clumsy volutes—for, though I know what fearful heresy it is to say so, I cannot but

No. 55.

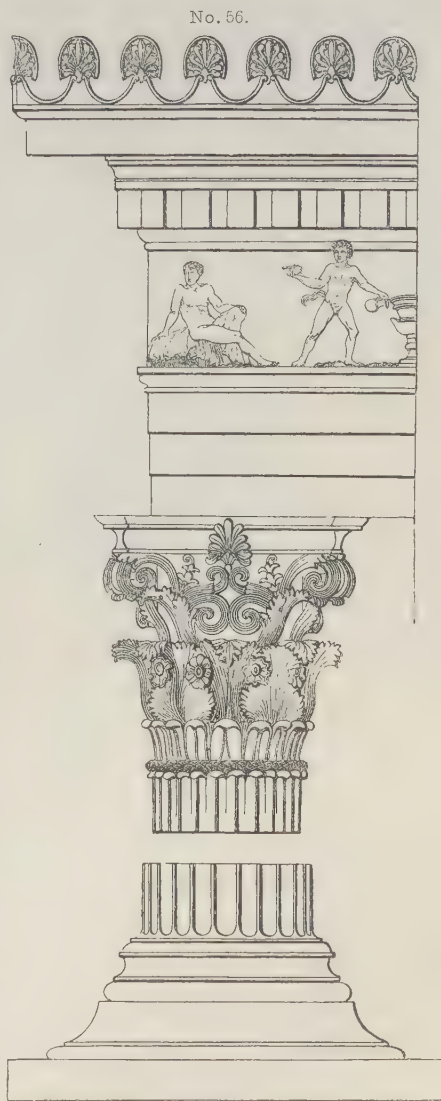


Capital from Branchidæ.

think that the Ionic volutes are, for the capital of a column, as clumsy an invention as ever was hit on—as in everything the Greeks did, they imparted a degree of finish and elegance to their new invention which half conceal its intrinsic defects, and force us to admire it, if only because it is so far better than anything we

* Even Vitruvius was aware that the sloping jamb was peculiar to the Ionic, and did not belong to either the Doric or Corinthian orders. Lib. ii. chap. 6.

can do. But be this as it may, the first stage in the invention of a new order appears to have been to extend the honeysuckle ornament of the necking of the Ionic capital over one of a bell-shaped form (the idea, probably, borrowed from Egypt), dispensing with the volutes altogether, though sometimes replacing them with rosettes, as in the cap of the Caryatide figure, No. 58, further on: to this was afterwards added the Persepolitan water leaf; but the capital improvement was the introduction of the acanthus leaf, as in this example from Branchidæ (No. 55), that gave a richness and variety to the order, which forms its principal charm; and if we are to dispense with sculpture and painting, there is no doubt that is the most beautiful and elegant of Grecian orders. In the beautiful order of the monument of Lysicrates (No. 56), all the parts mentioned above are continued; the Ionic volutes are retained, though very much subdued; the rosettes, and water, and acanthus leaves are combined. All those parts, which are found distinct and separate in old and more simple examples, are here brought together to produce as rich an effect as possible.*

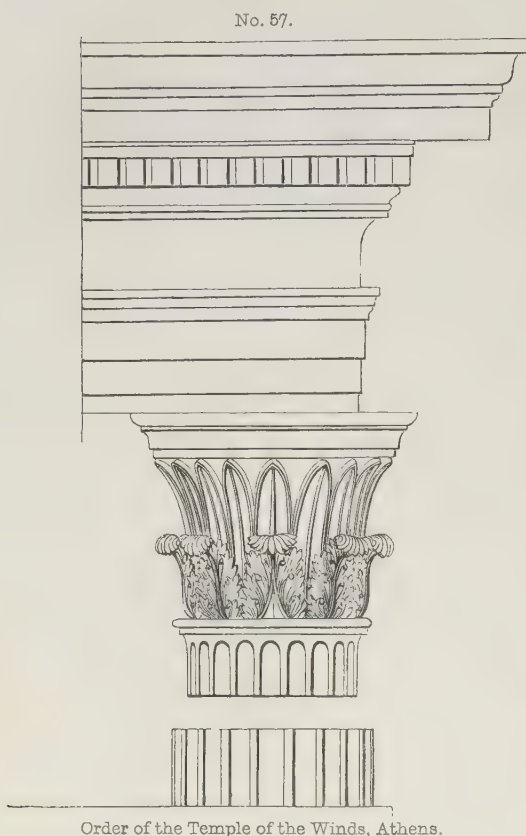


Order of Monument of Lysicrates,
Athens.

* In this order the architrave is, as usually represented, out of all proportion to the rest of the entablature. The motive, however, for making it so is evident enough: the building was circular, and with only six columns in its circumference, so that the greater part of the entablature projected beyond the points of support; and had the architrave been only of the usual proportions, the entablature would have

appeared, from this circumstance, unpleasantly weak to the practised eye of a Greek. To remedy this defect, the architect increased its relative depth to the greatest extent he could without deformity. Our modern architects, finding it usually represented as straight in their copy-books, repeat, without thinking, this deformity in their straight entablature, however close the intercolumniation may be.

Besides these, however, there are several other examples of the



Corinthian order in Greece, all differing most essentially from one another, but all displaying more or less of that elegance and taste which the Greeks threw into everything they did. One of the most elegant is found at Branchidæ,* another was found at Bassæ, and is represented in the centre of the section of that temple, Plate III. In the vaults under the temple of Jerusalem one is found with the water and acanthus leaves arranged alternately,† somewhat resembling that of the Tower of the Winds at Athens, represented in the annexed woodcut (No. 57), except that in the latter instance the acanthus leaves

are arranged in a circle below, and the water leaves by themselves above them: in which respect I cannot but think the Syrian example more perfect than this; and in all instances I like those best which omit all reminiscences of the Ionic volute. Had the Greeks continued for some time longer their experiments on this form, I am convinced they would have invented a far more beautiful order than the Roman one, which is now our standard of excellence; but they only tried it when art was on the decline, and never, except under Roman influence, attempted it on any extended scale. As they used it, it was a mere decoration,—if I might so call it, a furniture order, and never considered worthy of being employed in temples or any buildings of importance; and, in consequence of this, we have merely single and detached fragmentary specimens of it, without an instance of one building in all Greece displaying it in such proportions,

* "Ionian Antiquities," vol. i. chap. iii. Pl. VIII.

† "Topography of Jerusalem," p. 15.

or designed with such care, as would justify our comparing it with the great national Doric and Ionic orders of that age.

In itself, the invention of the Corinthian order points most distinctly to the period of the decline of pure art in Greece, when phonetic sculpture degenerated into mere æsthetic carving, and a degenerate race were content to supply the place of an art that could only be exercised by the highest order of intellect, with one which any matter-of-fact mason can execute, and which, indeed, is better done by a painstaking carver than by any true artist.

Notwithstanding this, however, the order in itself is probably a more beautiful one than the Doric, and, if executed with equal purity and taste, a Corinthian portico or temple is a more perfect and elegant work of art than a Doric one, provided neither of them have any phonetic sculpture nor any painting to aid in the general effect; but, I think, no one can hesitate between the two orders in their completeness, and that the portico of the Parthenon, as finished in the age of Pericles, was infinitely superior in every respect to any Corinthian portico ever erected in ancient days, or which can now be conceived even by the most exuberant imagination.

CARYATIDES.

The Caryatides, or female figures supporting entablatures, was another form of an order towards which the Greeks were tending in the age of decline, and of all those they did attempt was certainly the one the taste of which was most questionable. Generally it is assumed that, like the sloping jambs of the doorways, the Greeks borrowed this from the Egyptians: such, however, could not have been the case; at least I do not know of one instance of such a thing on the banks of the Nile, nor of any tendency towards such a form, which is so essentially foreign to the spirit of their art. It is true, they sometimes placed colossi in front of the square piers which supported their entablatures, but in no instance did the figure either bear, or assist in bearing, any architectural member; and the pier behind the figure was always made stronger and more solid than the other pillars, so as to take away even the semblance of the idea of the figure itself being wanted for that purpose.

In Assyria, no Caryatide figure has yet been found: but if the Greeks did not invent it, it must, I think, have come from that quarter, it is so completely in the spirit of their art: and, though I cannot prove it, I feel convinced that the throne of their monarchs (it, of course, was a large

platform), and their galleries, and such-like, must have been supported by figures. Indeed, at Persepolis,* we frequently find rows of figures (in this case always males) bearing entablatures on their uplifted hands, as in woodcut No. 23; and though this is not the mode adopted by the Greeks, the idea is the same, and at all events it is much more like it than anything found in Egypt. It must also be borne in mind, that the only example of it found in Greece is in conjunction with an Ionic building, essentially Asiatic, and essentially opposed to anything African.

In the example in the triple temple on the Acropolis (woodcut No. 53),

No. 58.



Caryatide.

the artist certainly has done all he could do, by making the figures as solid and as architectural as possible, and by lightening the entablature to as great an extent as was consistent with apparent stability, so as to avoid as far as possible the inherent awkwardness of his design; but, notwithstanding this, it requires all our fond faith in Grecian art to prevent our condemning at once so manifest an absurdity as employing statues, representing living figures, to do the duty of stone pillars. If placed in front of stone piers, as the Egyptians used them, they would be infinitely less objectionable; and in that case, perhaps, the entablature might be broken and project over their heads, and a vase, as an acroterion, be placed over it without much seeming incongruity: provided always that sufficient masonry existed, independent of the figures, to support any roof or ma-

sonry that might exist over them. As ornaments to windows, or doorways, or chimneypieces, in modern times, they might be used with the best effect, but never as they were used by the Greeks during the decay of art.

The annexed woodcut represents one of Greek workmanship found at

* See the works of Ker Porter, Texier, and Flandin and Coste, *passim*.

Rome, and now in the British Museum, and is more elegant as a statue than those at Athens, though certainly less suited than they are to do duty as a pillar; and it is difficult to understand what kind of entablature could be placed over it, of sufficient lightness to avoid the effect of either crushing the figure or of being so flimsy as to be insufficient for the purposes of a roof, at least of an architectural one.

HYPÆTHRON.

There is nothing connected with the disposition of Grecian temples which has given rise to so much controversy as the mode in which they were lighted; it is one of the few points on which we have no direct authority from the buildings themselves, and can now scarce hope to obtain any; for all the roofs were supported by wooden beams, and these having perished, as all wood must in two thousand years, the roofs have fallen in, and have been so completely destroyed as to leave no indication of their original arrangement.

In ancient authors there is, perhaps, only one passage that can be said to bear directly on the subject, the well-known one in the first section of the first book of Vitruvius; here, however, unfortunately, the text is so corrupt that scarcely two MSS. agree as to the words of the author, and it would be difficult to find an example of more misplaced ingenuity than has been exercised by writers to make the disputed passage agree with their own views. It appears, however, of no consequence whatever to the present question what the original words of Vitruvius were, for the context shews that he is speaking of decastyle temples, and these only; and as the word "Athens" certainly occurs, he could only refer to the temple of Jupiter Olympius in that city, which, from its size and disposition, most probably had a kind of court in its interior to light the cell: but whether it had or not, as there is no Doric decastyle temple in existence, we must look elsewhere for information.

Many authors, who have been shocked at the clumsiness with which modern architects restore the hypæthron, which is always done by merely removing the roof off the cell and exposing the latter to the weather as an open court, have denied its existence altogether, and found, among other passages, one in Strabo, where it is said that, if the statue of Jupiter had risen, its head would have pierced the roof, proving the existence of one

over it ;* and another in Pausanias,† in which he says, that in front of the statue of Jupiter at Olympia, there was a sinking in the floor to contain the oil used to preserve the ivory statue from the dampness of the situation, while, on the contrary, water was used for the same purpose in the Parthenon, because the Acropolis at Athens was dry and rocky,—precautions which would have been absurd had the statues been exposed to the atmosphere in open courts; while, on the other hand, there are several intimations elsewhere of artificial lights burning in the cells of the temples. To the former objection I shall return presently; with regard to the latter, I would merely remark that it would be quite as logical to reason from the practice of the Roman Catholics burning candles upon their altars, and lamps before the host, that there are no windows in their cathedrals and churches at the present day.

I can perfectly understand that a gloomy semi-Etruscan or Pelasgic superstition, like that of Rome, should be content with the mysterious glare of a lamp in the small cells of their temples, to which the public were not admitted, and where they neither had statues fit to be seen nor works of art that any one cared to look at; but it appears quite impossible that an artistic people like the Greeks should have been content with such gloom: their whole art is cheerful and sunny, and to suppose that they would shut out the bright light of day from their beautiful temples, or from such works of art as the Minerva Parthenon or the Jupiter Olympius of Phidias, and light them by such imperfect artificial means as we know they only could command, is something to my mind so strange, that, if I found a distinct assertion to that effect,—in a Roman author at least,—I should feel very much inclined to dispute it even now. At the same time, if I thought the Greeks opened the roofs of their temples as modern architects do for them, I confess I should be placed in the dilemma of scarce being able to choose of which fault I would accuse the Greeks: but I have a higher opinion of their art than to suppose they were guilty of either.

In attempting, however, to arrive at clearer notions on this important subject, it is needless to refer to the written authorities; had they contained a solution of the problem, it would have been answered long ago. Even Pausanias, from whom we should expect most, is singularly silent on this subject. It was apparently a thing that every body knew and understood, and therefore he did not think it necessary to stop and

* Strabo, viii. 353.

† Pausanias, v. 11.

LONGITUDINAL ELEVATION & SECTION.

EXTERNAL

INTERNAL

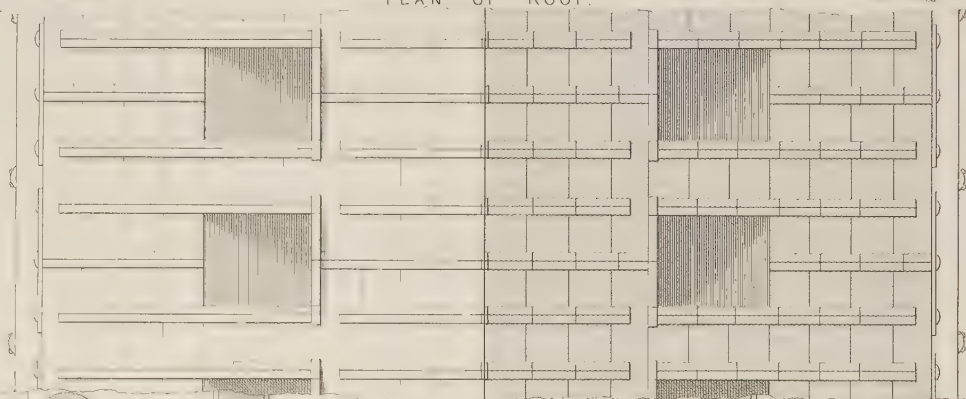


TRANSVERSE

SECTION.



PLAN OF ROOF.



PLAN OF CELLA.



0 5 10 20 30 40 50 Feet

describe it; just as a modern tourist, when he has said that such a building is ornamented with a portico of six or eight Grecian Doric, or Corinthian pillars, passes on, and does not stop to define and describe what a Doric or Corinthian pillar is: every one knows, and he has said enough. Had there been anything singular in the mode in which any one temple was lighted, he might have stopped to describe it, but they were probably all lighted in the same manner, and all the world were acquainted with it.

We must turn, therefore, to the temples themselves, and see if they will help us to a solution; and taking first one of the simplest and smallest, that of Apollo Epicurius at Phigalia,* let us try and understand its arrangement. (See Plate III. woodcut 49.) The first thing that strikes one is the existence of a sculptured frieze (now in the British Museum) running round the cell, at the height of the external frieze of the Doric order of the temple. Supposing the cell roofed in any way, every one must see that it is quite impossible that sculpture so placed could have been properly lighted by any artificial means, for in that case the lights must have been below the level of the figures; besides, no frieze can be properly lighted by artificial light, unless it was in only one direction, and was illuminated by one lamp of sufficient power to light up the whole. I need not say the Greeks could not command this; and I defy any one now, even with gas and all the mechanical means we can command, to do this as it should be done: nor need I add that the Greeks would never have placed such a work of art in a position where it must remain in the dark, or be lighted so as to make it literally ludicrous.

The architects who restored this temple for Stewart's "Athens," as well as M. Blouet,† felt this, and, to avoid the difficulty, omitted the roof over the cell altogether, making it merely an open court—a sham temple, in short, a peristyle and dead wall surrounding nothing: such ideas, I know, occur quite naturally to architects nowadays, but never were executed anywhere except by them; so that this, certainly, is not the solution of the problem.

On looking attentively at the plan, it will be observed that the distance from the external frieze to the internal one is very nearly the same as that of the two internal friezes from one another, so that if the temple had three roofs they would be as nearly as possible of equal widths. But

* See Supplement to Stewart's "Athens," vol. v. Pl. I. to X.

† Expédition Scientifique de la Morée.

a more striking peculiarity is, that all the internal pillars fall exactly between the external ones, and in a manner that could not be accidental, for those at the inner end of the cella (*a, a*) are brought forward in a manner that would be clumsy in the extreme if it were not for some strong motive; and the mode in which the last one at the other end is stuck against the front wall of the cell is equally awkward and difficult to account for, as the inner pillars never could be seen in conjunction with the outer ones. The object, however, of all this arrangement becomes apparent at once, if we assume that they desired that the principal drainage of the roof should fall between the external columns, not against them so as to corrode them, as otherwise it would inevitably do. The annexed ground plan, with the plan, transverse and longitudinal sections of a portion of the roof of the temple, shewn in Plate III., will explain better than words can do what I believe to be the mode in which the roof was arranged and the temple lighted.

Constructively, I cannot see a single objection to this mode of lighting the temple. The small portion of rain that would fall on the reverse roof could easily be drained off by a pipe at either end of the cell, or in some temples returned to the exterior by pipes laid over the roof of the peristyle; or, if these are thought too refined modes for the Greeks, if allowed to drop through holes in the gutter into vases placed on the floor of the temple it could cause no inconvenience, and the openings could be easily protected by either curtains or shutters so as to prevent the rain beating in.

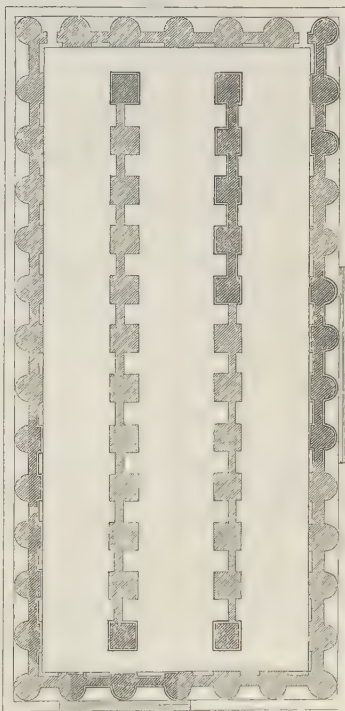
Artistically, no mode of lighting has been discovered more pleasing than that of an elevated clerestory, which this in fact is; and if this were the mode adopted by the Greeks we have not yet improved on it. Of its internal effect, I think no one can doubt; and externally it neither breaks the ridge of the roof nor its lower termination, nor in any view can it be said to break the outline of the temple: but it relieves the monotony of the great flat expanse of the sides of the roof, in a manner which I should think extremely pleasing to the eye, and which it would always be desirable to introduce when a reason at the same time can be assigned for its use.

Assuming this for the present, if we turn to other Greek temples known or suspected of being hypæthral, we shall find the same system apply with equal ease to all; to none more so than the great one at Paestum, where so much of the internal structure of the cell still remains. In this instance, however, the hypæthron is so high, and relatively so

narrow, that the architect has not thought it necessary to attend to throwing the drainage between the outer columns, because all that is required for internal effect is that the reverse roof cannot be seen from any part of the interior: the counter-sunk opening may here have been so small as to render that precaution quite nugatory. In this temple, as, indeed, in the greater number of Doric ones, the stairs are plainly indicated by which the attendants had access to the curtains or shutters by which the hypæthron was closed; and I believe, if they have not been found in all, it is because they have not been looked for.* If my theory is not correct, of what use were these stairs? They were not put there without some motive, and what their meaning is has not yet been explained.

The great temple of Jupiter at Agrigentum is one of the exceptional buildings that sometimes let us into a secret which is not easily detected in more regular ones, and is the one that first led me to take this view of the mode in which Greek temples were lighted. The annexed plan (woodcut No. 59) shews an immense cell, at least 230 feet long by 50 wide and 70 high, which no one will, I am sure, contend was ever lighted by lamps. Mr. Cockerell,† from whom the plan is taken, has, in his restoration, admitted the light correctly enough into the side aisles (except that in a Doric building the jambs could not have been sloping), but how he could help seeing that the centre was lighted by windows between the Talamones I cannot understand. To me it appears so easy to effect this, and so self-evident that this was the mode by which light was introduced into the cell, that I am content to refer the proof to the annexed woodcut (No. 60), which, without pretending to minute accuracy, or to being an ornamental restoration, at least explains

No. 59.



Temple of Jupiter at Agrigentum.

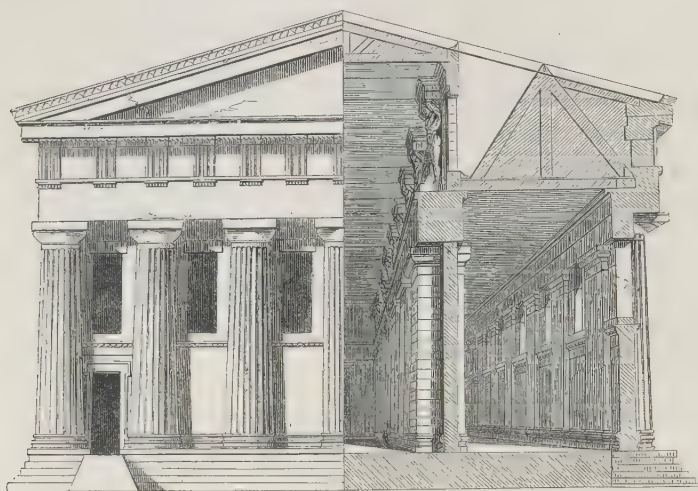
* In one of the temples of Selinus, a circular spiral stone stair is placed on an angle of the cell, instead of the usual stairs

in the thickness of the wall. See Hittorff and Zanth's "Arch. Ant. de Sicile."

† Stewart's "Athens," vol. v.

how it could be done, and with a little pains it would not be difficult to shew how it could be done ornamentally.

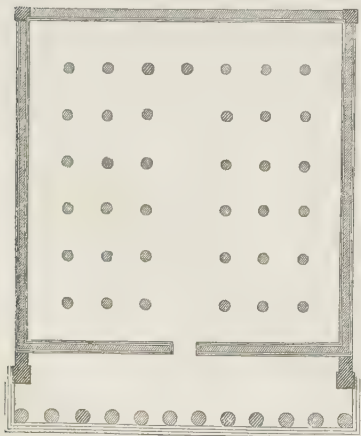
No. 60.



Temple of Jupiter at Agrigentum.

The *instantia crucis* of this or any other theory of lighting will probably always be the mystic temple at Eleusis, regarding which we have more written details than any other. The annexed plan* will shew its

No. 61.



Temple of Ceres, at Eleusis.

general disposition, in strict accordance with such remains as have been found: unfortunately, they are fewer and less perfect than of most others.

The principal authority here is the well-known passage in Plutarch, wherein he informs us that Corcebus began to build the temple, and proceeded so far as to erect the lower columns and their epistylia (of the interior, of course, for we know from Vitruvius that the external portico was added afterwards by Philon†); on his death, Metagenes of Xypetes added the galleries, diazoma? and the upper columns; while Xenocles the

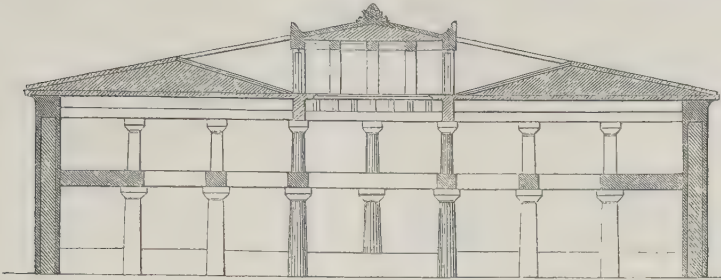
* I, of course, reject the very absurd restoration proposed by Mr. Gandy in the Dilettanti volume of "Antiquities of Attica." No Greek ever designed anything so artistically bad, or so constructively im-

possible, as that one is. Whether I am right or wrong, that certainly never was executed in Greece.

† Vitruv. in præfat. vii.

Cholargian constructed the clerestory with the roof over the principal part.*

No. 62.



Section of Temple at Eleusis.

This passage, as well as every other I am acquainted with, appears to me perfectly clear from the restoration I have given: for it is quite clear that the temple could be lightened or darkened at pleasure, and any kind of scenic machinery be used from the galleries between the three roofs by which I suppose the temple to have been covered. Whether in this instance the whole of the water from the centre and reverse roofs was allowed to drain into the central gutter or not, I do not know; but, from the form of the pediment in front, I should be inclined to suppose the lights only were, as in other temples, counter-sunk.

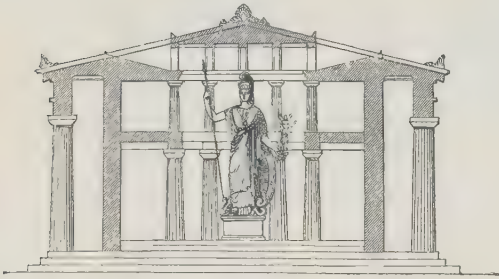
Perhaps the most satisfactory mode of settling this question, so far as this temple is concerned, would be to inquire where the Eleusinian mysteries came from, and, consequently, what building this temple most resembled, as it is so unlike most of the temples of the Greeks. I believe there is very little doubt but that the mysteries came from Egypt; and we know of no building at all resembling this except the hypostyle halls of that people. If any one will take the trouble to compare the section of the one at Karnac (Plate II.) with this one, or the plan of that of the Rhamesion (woodcut No. 3), or the plan and section of the temple (woodcuts 4 and 5), I think they will see that the one is literally only a translation into Greek of the other; and it seems to me absurd to suppose, that while the Egyptians had been so long familiar with this beautiful mode of lighting their interiors, the Greeks should have remained in ignorance of it: for not only are the great Egyptian halls so lighted, but the cells of all the temples of which the remains are sufficiently perfect to shew how it was done. It is true the Egyptians had an

* Plutarch in *Pericl.* The Greek word | turns, I translate "clerestory." Can any
opaion, on which the whole controversy | one suggest a better?

advantage in their flat roofs and rainless climate, but I think the Greek mode, as I have restored it, gets over this difficulty without much inconvenience, and makes the mode of lighting as beautiful, artistically, and as perfect, constructively, as that of the Egyptians.

The same system, if applied to the Parthenon, or to the Temple of

No. 63.



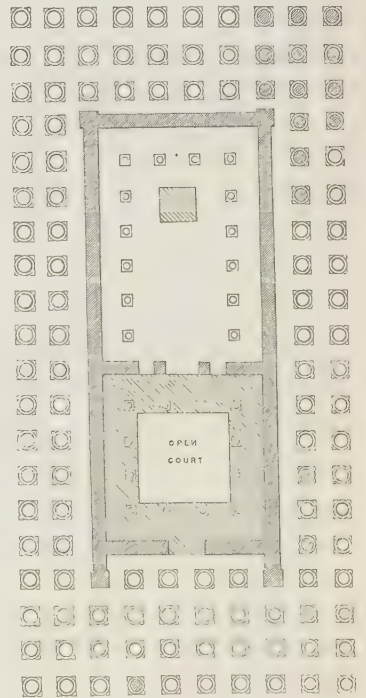
Section of Parthenon.

Jupiter at Olympia, will be found to fit them as well as those temples I have mentioned above. In the former temple, the friezes form the same proportion as at Phigalia, or divide the roof into three equal parts exactly, but the internal columns do not appear to have been placed symmetrically in

length with reference to the external ones, which may be accounted for either by supposing that it was not considered, constructively, of importance in a marble temple where the drainage could not corrode, or, artistically, worth attending to when the temple was placed so high that its roof could not be seen from any spot in the Acropolis, so that the architect felt himself at liberty to attend only to the internal symmetry without attending in this respect to that of the exterior.

As I said before, I believe that Vitruvius was thinking of the decastyle temple of Jupiter Olympius when he described what he meant by a hypæthral temple, and I conceive that the mode which he describes was really adopted for that temple owing to the difficulty of introducing a sufficient quantity of light from openings that must have been sixty or seventy feet, at least, above the floor of the cell, and that, consequently, the architect adopted the plan of a small court immediately within the portico, as shewn in the annexed woodcut

No. 64.



(No. 64), probably with a double gallery round it, and lighted the cell from a large window; which might easily have been hid, or at least so

masked by the upper gallery as not to be a deformity, and at the same time to light the cell in as pleasing a manner as the one which the lower proportions of the Doric order enabled its architects so successfully to adopt.

I need scarcely say more on this subject at present, as the drawings explain it more clearly than the text can do, and if it is to be a matter of controversy, I may wait to see what may be said against it: for myself, I can see no objection, for, so far as my reading goes, I do not know of one single passage in any author bearing either directly or indirectly on the subject that contradicts this view, or that the mode I have adopted does not clearly and satisfactorily explain; nor is there any Greek temple to which it cannot be applied, or which, in like manner, shews any remains that favour another view. Neither can I see any constructive or artistic difficulty to prevent its adoption by the Greeks, nor by ourselves, if we insist on repeating Grecian buildings instead of inventing others for ourselves. For my own self, therefore, I consider the question as settled, and only hope that any one who finds fault with it, will suggest a better.

POLYCHROMY.

Till within the last few years, it was a disputed point whether or not the Greeks painted the exteriors of their temples: sufficient remains of painting, however, have been found, both in Greece and Sicily, to prove beyond all doubt that they did so. But, even if this had not been the case, I should certainly have been inclined to assert it, even though I might not have been able to satisfy others that it was so: for we know that from a very early age the Egyptians not only painted the architectural members of their buildings, but covered their walls with coloured pictures of men, and animals, and inanimate things; and though I can understand that, if it had not been done before, the thing might never have suggested itself to the Greeks, still, when they saw it done in a neighbouring country, and saw the beautiful effect it produced, it is almost impossible that they should neglect so ready a means of heightening and improving the effect of a building. For it must be borne in mind, that one of the first rules of all true art is "to use every available means to produce in the best possible manner the best possible effect;" and that colour is one of the

readiest and easiest modes of doing this, all nature and all art most plainly prove. Even we admit the fact in the interior of our houses, for we never leave our walls quite without it; and we have lately discovered that what improves the effect of a room may improve the interior of a church or public building, which in our thoughtless habits we had till lately quite overlooked. Some day we may take yet another step in advance, and find out that what improves one side of a wall may also improve the other; and if designed on a larger and bolder scale, or, in other words, in a manner appropriate to the situation, I know of nothing that could contribute so easily to heighten architectural effect as the addition of a little polychromy; and what, perhaps, may be considered even a more powerful reason for the attempt, is that it would cost very much less money than the carved ornaments on which our architecture almost entirely depends now for its effect.

As used by the Greeks, however, we have to regret that they employed it only in so ephemeral a manner, as they seem only to have applied water-colour to the surface of marble when the building was of that material, or on plaster when the temple was of stone, and it has in almost every case been washed off the one or peeled off with the other. They neither countersunk their patterns as the Egyptians did, nor inlaid them or used variegated materials, as they might have done, and as is done in India to the present day, with the very best effect; and the consequence is, that while we can judge perfectly of what was effected on the banks of the Nile or the Ganges, it is only in the mind's eye that we judge of the true effect of one of the beautiful temples of Greece, when every part of it was adorned with sculpture or relieved with painting.

The mode in which I conceive the colour to have been used appears to have been by first painting the mouldings with honeysuckles, scrolls, and all those ornaments which we find afterwards carved in the richer Ionic orders, then relieving the sculpture by a blue or neutral tint background, and tinting it so as to correspond and be in tone with the rest; but the mass of colour and art must have been applied to the walls of the cell, which were in fact the great picture-frames of the temple. To the height of six or eight feet, at least, I conceive that they must have been covered by a rich dark dado; and above that, in one, two, or three rows, with pictures of processions, scenes from the life of the deity, and generally by such myths as the Greeks were never tired of repeating, and sought to express by every means and in every place. The Panthenaic frieze I look

on as a procession that would have been painted on any less rich temple, but here was carved as a crowning ornament* or capital to the great picture below, in a situation where relief and accentuation would add very much to the effect of the frieze itself, and also by contrast afford relief to the flat paintings. It is probable that all the scenes on temple walls were in one or, at most, in two colours, like those on the vases, relieved only by a differently coloured ground. A greater number of colours would be required for sculpture, but for monumental painting one generally is enough; more than two would be in excess, and in great danger of degenerating into vulgarity.

INVISIBLE CURVE.

Considerable discussion has lately been excited by the discovery of what has been called, and properly so, an invisible curve in the stylobate and architrave of the Parthenon; and some enthusiasts have been willing to believe, that the reason why all our attempts to imitate Greek architecture have been so cold and poor has arisen from our neglecting this important feature.

There is a passage in Vitruvius† which, properly understood, would have led us to suspect the existence of such a curve; and, so far as the ends of temples are concerned, there appears to be no difficulty in accounting for its existence, as any one may satisfy himself who will go into a railway-station or any place where the roof is formed of two sloping rafters connected by a tie rod; though the latter, from its position,

* There has recently been some talk of completing the copy of the Parthenon, called the national monument, on the Calton Hill, Edinburgh; such a building will, I fear, never be anything else than a "folly." Still, if carried out with knowledge and taste, it might give us a means of judging of some arts which are now lost; and, if painted and sculptured as the Parthenon was, it would be the only complete specimen of Greek architecture in Europe. The roof could easily be managed, for we can paint

and glaze tiles to last almost for ever; and by inlaying the patterns on the cornices and walls in coloured cement, they might be made as durable as the stone itself. Mechanically, the thing is easy, and it might be a more useful lesson in art than the nation has yet been taught; but who is to conceive, and, more than this, who is to carry through such a design against all the prejudice and *tracasserie* to which he or they would be exposed?

† Book I. chap. 3.

must necessarily be straight, in every instance it appears broken or bent in the centre,* and it was to correct the defect arising from this optical deception that the *scamilli impares* were introduced.

So far, I think, there is no difficulty; but it is found in the Parthenon that the sides also are curved to twice the extent of the ends: or, in other words, the rise in the centre of the step at the east and west ends being between two and three inches, that in the centre of the sides is between four and five, while the above explanation will not in any way apply to account for its existence here; and it will not do to say that, because the Greeks did it in one place they repeated it in another, for they did nothing without a good and sufficient reason, and that reason we must discover, or confess that the problem is still unsolved. My own impression is, that it is here nothing more than a drainage curve; for it will be observed† that the whole of the west end is higher than the east end of the temple, and that the south-west angle is higher than any of the other three angles, which takes away considerably from the minute parabolic accuracy Mr. Penrose would willingly persuade himself‡ the architects were attempting; and, besides, the centre or highest point of his parabola falls exactly where I have placed the commencement of the hypæthron, and falls most rapidly with it towards the east: so that it would be of considerable use in assisting the drainage in that direction. Our superior mechanical means would enable us to get over this with less difficulty; but it seems quite in the spirit of Greek architecture that they should take this open and honest way of accomplishing it. The other and smaller curve, towards the west, was necessary to counterbalance this, so that the temple might not have the appearance of slipping down hill.

* The first place I noticed this optical deception was in the new foundry built at Calcutta, in 1832. So strong was the deception there that every one remarked it, till, at last, the superintending engineer, fearing that it really was the case, and that the rafters were not bearing properly on the ties, had it carefully levelled with a theodolite; and though this shewed that the rods were quite straight, he could not satisfy himself of the fact till a scaffolding was re-erected and the thing subjected to actual direct measurement. An account of this was published by M. Prinsep in the

"Journal of the Asiatic Soc." vol. iv. p. 113.

† See Mr. Penrose's letters to the Dilettanti Society, p. 5. Lond. 1847.

‡ Since the above was written, Mr. Penrose read a paper to the Royal Institute of British Architects, in which he admits the same explanation for the ends, and used the above illustration as I lent it to him, but was unable to suggest any plausible theory for the curve at the sides, except the mathematical one: perhaps by the time his most valuable researches are published he may have found a better.

If this is not the true explanation, let some one suggest a better,—I cannot. But to suppose that such an invisible curve as this introduced into our porticos or peristyles would take away from their cold and unartistic effect, appears to me the very metaphysics of art. The idea that a form, the existence of which can only be detected by the most perfect mathematical instruments, should be a cause of beauty in a visible and tangible object, is what I can neither understand nor appreciate. I hope, however, it will be tried in the next portico we build. Perhaps the failure of the experiment may convince men that something more is wanted to produce a true specimen of art than such abject servility, as copying not only what we can see but what our eyes will not enable us to detect even when pointed out. We have long copied what we do not understand. It seems carrying the system to its acme of absurdity, to attempt also to copy what we cannot see.

SYMMETRICAL REGULARITY.

The commonly assumed symmetrical regularity is a property of Greek architecture, regarding which I must say a few words before leaving this part of my subject. It is, however, a property which only exists in the imagination of the moderns, for no style is freer from its absurdities than that of the Greeks.

It is true their temples are all perfectly so, and if cut down the centre the one side exactly corresponds with the other, and if cut across the one end is at least very similar to the other; for they treated the pronaos, naos, and opisthodomus as parts of one whole, which in fact they were, and made them, in consequence, perfectly symmetrical. But so did the Gothic architects; their churches or cathedrals were always designed as symmetrical buildings, and a line drawn through the centre, east and west, divides the building into two equal and like halves, unless some local necessity forced and motived a departure from the rule. The steeple was sometimes treated symmetrically with the body of the church, but as often as a distinct member. The vestry, or chapter-house, always so; and all halls, refectories, and dormitories, though generally symmetrical in themselves, are always designed as distinct and separate buildings, and placed as most appropriate and convenient, without reference to any sym-

metry with each other. Indeed, so fully are we aware of this in Gothic, that architects often stick on false gables and make false and unmeaning breaks to produce this irregularity, which is assumed to be a characteristic of this style, and of this style only, instead of being one of the fundamental laws of true architecture in every part of the globe.

If we had no other proof of the knowledge of it by the Greek architects than is found in the little triple temple in the Acropolis, that alone would be sufficient to prove how fully aware the Greeks were of its importance, and how studiously they avoided the falsehood and absurdity the contrary system inevitably leads into.

Looking at the plan and elevation of it (woodcut 53), it will be seen that the main building is divided into two apartments by a wall running across the centre. A modern architect, or even a Roman,* would simply have made an entrance at each end, facing one another, and thus have preserved the external regularity without any trouble or difficulty; but with a Greek this was impossible. A portico for the entrance to the second temple was placed on one side, neither in the centre nor at one end, but beyond the end, so as to require one third of it to be backed by a false wall; and, besides, he placed it on a lower level, so that not one line of this portico ranged with or ran into any other line or moulding of the main building. In like manner, for the third part, or portico, where probably the sacred olive-tree grew, the architect used a different order altogether, and placed it so that none of its lines above the base should correspond with any of the lines of either of the two other parts; so that it was impossible for any one, looking at this building, not to perceive that it was not one thing but three things he was looking at: and I do not think any Gothic architect ever marked his interior more distinctly externally, or, at least, ever went so much out of his way and took so much pains to do so.

In the propyla at Athens this is more easily seen than in their temples; and when some architect can be induced to represent them as they are and were, not as he conceives they should be, this will be clear enough. The centre part, as one apartment, was of course symmetrical; but the wings were studiously separated from the main design, and one wing made unlike the other. On one side was placed in front the little temple of Nike Apteros, at a most incongruous angle, and on

* See double Temple of Venus and Rome, at Rome.

the other a pedestal, whose axis was, of course, different from that of every other part; on the sides of the main building were placed other smaller ones: but it is quite amusing to observe what pains were taken lest any one line of one should run into any line of any other; and the whole group was placed so as to be as unsymmetrical with the Parthenon, or with any other building, as was possible.

At Eleusis, this is even more apparent; as there the two propyla, and the great temple of Ceres, and the smaller one of Diana, are arranged with a degree of irregularity that seems almost carrying the thing too far. At Rhamnus, two temples standing almost touching one another have still their axes at different angles: and, indeed, wherever in Greece we find two buildings, even though temples, or however similar in purpose, placed in juxtaposition, we are sure to find the architect taxing his ingenuity to the utmost to produce an irregularity that shall prevent the possibility of their being taken for one or even for parts of the same design.

Had we any remains of their domestic or civil buildings, it would not now be required to notice or to insist upon what is so self-evident: for to suppose that a people so eminently artistic as the Greeks could for one instance tolerate a falsehood in art, is to shew but little knowledge of either what art is or how the Greeks practised it. They could not be ignorant that one of the first, and, indeed, the fundamental canon of true art in architecture, is that the exterior of a building shall in every part and every detail express the interior as correctly as it is possible it can be done; and that all attempts to make two or more small things look like one large one, or any building look like what it is not, or as if belonging to another age from that in which it was erected, are vicious and false, and can only result in a direct falsehood covering an ill-concealed deceit.

At a future stage of this work I shall be able to shew that our absurd regularity system is an invention of the Italian architects, in the worst age of an attempted revival of classical art; and that we, by adopting it from them, have not only stopped all true progress in art, and spoiled all our public buildings, but have spent ten times the money on them that would have been necessary had we followed the dictates of common sense and true taste; and while hundreds, under their guidance, would have produced lasting beauty, it has required thousands to patch up an unsightly falsehood, which no one believes and which, at least, every one can detect by turning round the corner.

GENERAL REMARKS.

Were I writing an essay on Grecian art for its own sake only, or were I attempting to illustrate the general theory of art from the modes in which it was practised by that people, without reference to other nations or times, it might be necessary to say a great deal more on the subject of their architecture than is contained in the above few pages. There are, however, so few problems connected with the subject which may not be better illustrated from the far more numerous and better preserved specimens of Gothic or other Christian forms of art, that I prefer leaving them till I come to that branch of my subject; all that is really required here being to ascertain as correctly as possible the peculiar form of Grecian art, and its exact position in the scale of arts, that we may be enabled to compare it with others, and derive from such comparison those lessons which it inevitably teaches, and which are in themselves more useful than any direct instruction we can obtain from the study of the art by itself.

As I said before, the principal merit of Grecian art, as an object of study, consists in its being the expression of the most intellectual and civilised people that we are acquainted with, from the earliest times up to the Reformation in the sixteenth century. It by no means, however, follows necessarily from this that their architecture was the most perfect, as many circumstances might have contributed to their neglect of this individual art, even when they were aiming at perhaps attaining perfection in others. Had, for instance, Greece remained Pelasgic, though she might have left us innumerable tumuli, or specimens of her skill in working metals, or making vases, she would not have left us one single specimen of architecture, properly so called; and this without our being able to predicate from her neglect of such an art that she was either less or more civilised or artistic than another people, who may have used this art as their principal mode of utterance, which the Greeks certainly did not, but, on the contrary, always looked upon it as a subordinate and auxiliary mode of expression; though, perhaps, the greatest merit of their art, considered as a whole, consists in the perfection with which they assigned to each art its exact and appropriate place, and with a strong tendency to employ the higher phonetic ones

at the expense of those which were lower. If we view it in this light, we shall not only be better able to appreciate its real merits, but to understand many of the most striking phenomena connected with its history.

Of these, one of the most striking is its extraordinary immutability; for if we observe their architecture during the period of the greatest artistic activity in Greece, we find that all that was effected during the three centuries that elapsed from the time of Cypselus to that of Alexander the Great, was to elongate slightly a column they had borrowed from the Egyptians, and generally to improve the form of the mouldings, so as to make them nearly perfect mathematical forms, instead of others traced merely by the eye, and generally to perfect the masonry and construction to a very considerable extent: but they neither invented a new member nor a new form, nor even a new arrangement of those forms which they had adopted in the infancy of their arts. Compared with this, Egyptian art was one of rapid progress and bold innovation, at least during the three centuries that preceded its downfall, under the first kings of the nineteenth dynasty. There is no one king during that period that did not introduce into architecture more novelties than Greece attempted during the whole period.

Another peculiarity is their general contempt for size as a mode of expression. Their largest temples were the Parthenon, and the temple of Jupiter at Olympia, but these are very small when compared with those of Ephesus, or Agrigentum, or Selinus: the same money, however, and the same trouble that were bestowed on the Grecian examples would have erected far larger temples than those of Ionia or Sicily. But in this, as well as in their disregard of architectural novelties, I think the Greeks judged correctly in sacrificing mere technic architecture to the other qualities they were trying to attain. Generally speaking, their temples are sufficiently large and important for the effect required to save them from insignificance; not, it is true, as we find them copied in modern times, but placed, as the Greeks always strove to place them, on the highest spot available, so that their situation alone gave them an elevation the building had not in itself: and, also, it must be borne in mind, that, when surrounded by buildings, it was only the flat-roofed, low, one-storied dwellings of those days; so that the same buildings which would be low and mean in a modern city were lofty and imposing in ancient Greece.

Even in the form of their temples the Greeks shewed singularly little

invention, and indulged in almost less variety than even in their details. In itself, no form can be more commonplace and less artistic than that of a rectangle twice the length of its breadth. The Greeks, however, appear to have adopted it, in spite of its inherent frigidity and want of expression, because an unbroken colonnade will always appear very much longer than one in which the continuity is interrupted, and any break or variety would have required a very considerable extension in length to have insured the same apparent size ; and, at the same time, the frequent columns, and consequent narrow intercolumniation, were calculated to give the greatest apparent height with the least possible dimensions : so that by adopting a simple rectangle, and repeating the same unvaried member as frequently as possible, they attained all the apparent size they wanted, without the vulgarity of immense masses, or without taking their sculpture and painting too far from the eye, or contrasting it with such masses as would have made it look diminutive, unless executed on a scale which would have been not only inconvenient but in some cases almost impossible.

These and others that might be adduced are good reasons why Grecian architecture should have been technically inferior to the arts of other nations, and why it should be no reproach to the arts of that people to say that in architecture they were surpassed, both in power of invention and in variety and boldness of effect, by the Egyptian—and more especially by the Gothic artists in the middle ages ; and, viewed in the light of its technic merits alone, I have little doubt but that every candid inquirer will rank it lower than either of these two forms of art. *Æsthetically*, however, it has some merits they cannot boast of ; not in the general form or disposition of the whole building, for that is tame, not to say commonplace, but in the form and disposition of the mouldings and details, in which the style surpasses every other : but were a Gothic cathedral executed with the elegance in all its mouldings, and the same purity of form in every part, as if the most elegant and educated mind conceivable had directed and pervaded every stroke of the chisel, the Gothic would be not only technically, but *æsthetically*, the more perfect of the two. Generally speaking, however, both the Egyptian and Gothic styles are singularly deficient in this respect ; and where we may dwell for ever on the minutest curve of the Parthenon, and find always new pleasure in its contemplation, there is nothing in Gothic that commands such respect abstractedly, though much that delights

from its appropriateness, and from the mode in which it produces the effect for which it was designed. We must not, however, pretend to judge of the æsthetic merits of the Grecian style from its eumorphic forms alone, as they were only the basis of the euchromatic decoration, which was in that style the principal mode of effect; and judging from what traces remain of colour, and what we know of the form of it from the carved copies which were executed at a later time, I think we are safe in assuming that no system of chromatic decoration was ever æsthetically more perfect than that adopted by the Grecian architects.

The crowning merit of the style was, however, its capabilities for phonetic expression, and the perfection with which that mode was not only conceived but executed: in this respect, no style that either preceded or followed it can for one instant stand the test of dispassionate inquiry. In sculpture the Greeks surpassed all nations, and in painting, also, I believe, before the age of Raphael; these arts they applied to their temples, with all the power and all the taste they were capable of: indeed, these buildings should only be looked on as picture and sculpture-galleries, and judged of according to the greater or less degree of perfection with which they displayed or assisted the merits of the phonetic arts they were destined to exhibit. In other respects, I am convinced that they do not deserve the encomiums that have been lavished on them, and still less are they fit objects for imitation in modern times, by people inhabiting other climes and professing a different religion, even if we could imitate them so as to reproduce a complete Doric temple, in all details of painting and sculpture, as well as of masonry. I do not mean to deny that we may do this, but hitherto we have only executed skeletons of Greek temples; and though bones—or, rather, I should say casts of bones—are of the highest interest to the osteologist or comparative anatomist, and he sees beauty in them which the uninstructed cannot perceive, so fragments, or restored skeletons of temples, may have charms for the archæologist or architect which none but themselves can detect. Even if we advance to the class of stuffed specimens, among which I admit the Walhalla and Madeleine may be considered to be, the true lover of nature or of art will only be content with the living specimens, breathing the breath of life, and enjoying the functions for which they were created. Here, as everywhere else, revival is impossible, for “the dead return not;” and if we would have living things among us, they must be born and nurtured here, not imported from among the carcasses

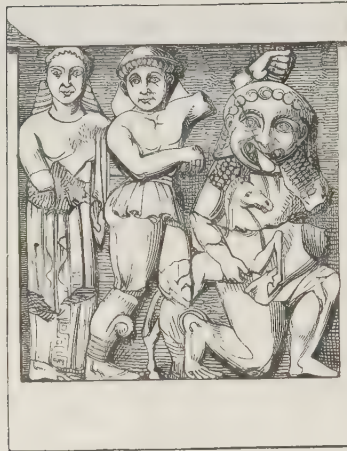
of past and dead civilisation. Restoration is impossible, but there are lessons to be learned, and a whole science to be worked out, of the remains of Greek art, which may enlarge our views and correct our taste, so as to enable us to surpass, but never to reproduce it. Indeed, the great lesson that it teaches is the position the most artistic people of the ancient world assigned to the three classes of art. The subordination in which they kept technic merit relatively to æsthetic, and the mode in which they placed the phonetic high above the other two—though to judge of this we must restore the Doric order in a very different manner from what is done in our treatises on the subject, or in those caricatures of the order with which we adorn our cities; and though I myself fancy I can guess what the order really was, I fear in such a sketch as this I have not the power of conveying even a glimpse of my view of it to my readers.

The Ionic, as more æsthetic and less phonetic than the Doric, is more easily understood, and if restored with its zoophorus, or life-bearing frieze, might be made comprehensible, as it is so much less intellectual. The Corinthian was not, properly speaking, a Greek order; at least, in their best days they despised anything so purely masonic as it is: but, till we can rise above our present stage of art, we should do well to confine our copying energies to this order. Any decorator can draw a Corinthian capital, any carver execute it, and any architect design a Corinthian portico; and I believe there is not a single capital, scarcely a provincial city, in Europe, where this may not be done as perfectly as has been recently accomplished at Paris. An Ionic one, however, is more difficult, for without its zoophorus it is cold and imperfect; and there is a want of completeness about it that to me is singularly painful. There is not, however, so far as I know, one man capable even of conceiving what a Doric temple was; nor in any capital a set of artists capable of executing it, even if a master mind could be found to conceive and direct such a work. Nor will there be till we have risen far above our present servility of copying, and learned what true and living art means. When once we are the equals of the Greeks, and stand on the same level as they stood on, with reference to art, we shall comprehend their arts: but, long before we reach that height, we shall have learned to despise copying as thoroughly as they despised it; and when we reach it, our superior knowledge and superior power, as well as the greater purity of our morals, and the higher tone and superior beauty of our

far more pure religion, will enable us to surpass all they did with a facility that ought to make us ashamed of the miserable inferiority of the position we are now content to occupy.

In the meantime, however, do not let us deceive ourselves by fancying that any curves, visible or invisible, can ever reproduce the arts of the Greeks, or any unmeaning copies of the outlines of their sculpture and painting. Art, to be anything, must come from the head and the heart, and tax to the utmost the intellect, if it would speak again to the hearts of others, or satisfy their intellectual exigencies.

No. 65.



Metope at Selinus.

SECTION IV.

SCULPTURE.

SETTING aside for the present the art of Poetry, as belonging to another category, there are none of the fine arts which the Greeks made so exclusively their own, or brought to such a high degree of perfection, as that of Sculpture. In mere masonic architecture, they were surpassed both by those who preceded and those who followed them. In Painting they must, probably, yield the palm to the Italians of the age of the Medici, though our means of forming a judgment on this head are scarce sufficient to enable us to speak positively. But in Sculpture they still retain an unrivalled pre-eminence, which no nation can pretend to dispute, and which in its peculiar line can probably never again be approached. I do not, of course, mean to say that we, or some other nation, may not have a class of sculpture equal to, or surpassing, that of the Greeks; but it will not, and cannot be, in that class of æsthetic sculpture which the Greeks practised and brought to perfection, though this remark applies to all the other arts as well as to this one.

It is not difficult to trace the causes that led to the perfection of Grecian sculpture, and, had I space, it might be useful to dwell on them at some length, not only for their own intrinsic merits, but from their direct bearing on the theory of the arts at the present day: for it is one of the most certain doctrines of modern philosophy that like causes produce like effects, and in consequence where the causes are totally different, different results must ensue, however similar they may appear at the first superficial glance; and it would hence be easy to prove the obvious corollary of the hopelessness of our attempt to reproduce Grecian sculpture in these modern days.

I have dwelt sufficiently before on the general causes which influenced Grecian art, and led to its perfection, and need not now revert to them here. The special causes which led to the perfection of sculpture were, first, the form of their mythology, consisting of gods, bearing the forms of men and women, without any other attribute than was possessed by human beings, and yet greater and more beautiful than mortals.

Other idolatrous nations have distinguished their gods from men by a thousand clumsy and vulgar expedients. The Egyptians, by a strange mysterious symbolism; the Hindoos, by adding heads, and arms, and limbs without number; and other nations by size and the precious material of which their images were made. But with the Greeks it was otherwise: their strange vanity led them to deify their own ancestors, and in deifying them the same vanity would never allow them any attributes they did not themselves possess. In their noble simplicity, the earlier poets, while celebrating their actions, seem to have felt sufficient reverence for these deified mortals to inspire their lay, without attempting either exaggeration or absurd hyperbole; and the gods remained to the last undistinguished from mortals but by their greatness and their immortality. When, therefore, it fell to the sculptor to portray them, he had no resource left but to concentrate every perfection he could conceive in human beings, and every beauty, till the image was too perfect for a mortal, and became a god. Yet so high was the aim, and so imperfect the power, that the greatest of sculptors, in the most perfect of his works, must still have felt how far he had fallen short of his aim, and how much was yet to be done; and artist after artist, and age after age, advanced step by step towards the great ideal, and added beauty to beauty till their images became what we see them. Perhaps

the limited powers of mortals can go no further in this direction, and certainly not without a profound faith in the object, and an earnest purpose to realise the unattained and unattainable goal.

With a higher aim more might, of course, have been done; and had they attempted intellectual beauty, and such feelings as the highest class of Christian developement will admit of, they might have reached a far higher point: but corporeal beauty was their aim, and material expression all their Paganism knew or attempted; and aiming at that they could not, of course, attain the other. It is for us, if we choose, to elect the higher aim, and reduce the other to a subsidiary vehicle in conveying the higher class of expression.

Besides, the Greeks possessed another class of beings, scarce less beautiful than the gods themselves, whose acts and figures it was the peculiar art of the sculptor to embody; all those demigods, and god-like, god-descended heroes, who people the mythic scene that closes with the return of the Heraclidæ,—men, indeed, who lived and acted in this world, but men over whom the earlier bards had spread their veil of poetry, and separated them from the ordinary races of mortals by lines, scarcely so distinct as to admit of enumeration, but still felt by every heart, and acknowledged by every Grecian in these days as a matter of undoubted patriotic faith.

Their sculptors seldom meddled with the present, or if they did it was to portray those heroes who had saved their country, or ennobled it by their wisdom or their patriotism; and then it was not vulgar portraiture, as now—not a bringing down of the past to do honour to the present, but a carrying back of the present into the mythic regions of the past; an apotheosis of the contemporary hero, by carrying him back to the regions of mythic times, and placing him among the heroes and the demigods of the bygone ages, with which this image-land of the sculptor, as of the poet, was filled. It was thus, with a past, all poetry—a present, all glory—and a future, all hope; and with an aim higher than the human mind could reach, and which the human hand toiled after in vain, but still with hope, that Grecian sculpture rose step by step to perfection, and might, perhaps, but for political troubles and the downfall of the commonwealth, have gone even further than it did, and arrived at more æsthetic beauty in its utterance than we find in them even now. But I do not think it ever could have reached the highest class of phonetic expression; indeed, I do not see anywhere in Greek art a

tendency in that direction, nor do I believe that any nation could attempt it without higher and sounder notions, both of religion and philosophy, than were possessed by any of the nations of antiquity.

There is still another cause—which I hinted at before in speaking of Architecture, but which had even more influence on Sculpture—in the fact of the introduction of alphabetic writing having freed the art from the trammels which prevented it from progressing and attaining perfection in Egypt. With that people, the statue or the bas-relief had to speak as well as to represent: in Greece, the poet spoke, and the sculptor represented what he said.

In the earlier stages of Greek art there can be little doubt but that symbolism was both necessary and used to a certain extent, but when the art came to be better understood, and more especially when the works of the poets were more generally diffused and read, it became less and less necessary; and though from habit—and, perhaps, reverence for the ancient modes—we seldom find a statue without some slight symbol to indicate its name, the symbol is in itself insignificant, and always subordinate; and even now we scarcely require it to distinguish between Jupiter, Neptune, Vulcan, or Apollo, and still less between Juno, Minerva, Diana, and Venus: still it is generally there, but it never interferes with the representation. The poets supplied the characteristics and the attributes, and where these were known the artist had little difficulty in distinguishing the god he meant to represent, even in single statues, and still less in series or groups, where the slightest conventional mode of dress or characteristic was sufficient to indicate the name of one of the principal personages; and to those familiar with the myth the scene immediately suggested itself, and the question then was,—not as in Egypt, Has the artist told his story with sufficient distinctness? but, Has he represented the story of the poet, or the well-known tradition, with all the beauty or the pathos that belongs to it?

With an art thus freed from restraint, and fitted with such high aims, we should not feel surprised if we find it progressing rapidly towards perfection. Indeed, in this respect, nothing can form a more striking contrast to the history of the contemporary art of architecture than that of sculpture, and instead of the stationary, unprogressive character of the former art, we find the latter striding forward with a rapidity unequalled, even by the progress of Gothic art in the thirteenth, or Italian painting in the fifteenth, century.

In architecture the Greeks seem, as I said before, studiously to have avoided novelty of any sort; it was sufficient for them to improve, without altering, the old conventional form, keeping it nearly as originally borrowed from the Egyptians. Any novelty would have distracted attention from the phonetic arts, of which it was merely the framework: all they attempted was to make the masonry perfect, to correct every optical delusion, and to make every detail as simple and as perfect as possible, but always with a tendency rather to subdue and keep them down than to improve or elaborate them, so as to make them more prominent. Nothing, indeed, appears more self-evident than that the Greeks, in the best age, considered architecture as the subordinate, sculpture as the principal art, and it is necessary always to bear this in mind in speaking of their temples or architecture. Some may be inclined to dispute the correctness of their judgment in this respect, but to my mind nothing that they did bears more distinctly the impress of great knowledge and sound critical judgment than this preference of a phonetic to a technic art: from a thing, in short, that any mason can execute, to one that only the highest class of intellectual artists can either conceive or perform; and which, besides, offered then, as now, an aim which has not yet been reached. Architecture has high aims, too, but they are neither so high nor so difficult of attainment as those of the sister art; the proof of this lies in the fact that barbarians have surpassed them in the one, but no nation ever equalled them in the other.

It is by no means clear whence the Greeks borrowed the rudiments of their art of sculpture, but I do not think it could have been from Egypt, for in the oldest specimens of their art I cannot trace a vestige of the formal, half-architectural mode of sculpture which that people practised, nor of the flat, conventional, profile form, which is the only one they almost ever attempted for groups. On the contrary, the Archaic forms, both of sculpture and painting, with the Greeks, are characterised by exaggerated activity and bold muscular development, which seem to have been their mode of expressing power, instead of the size, combined with repose, which was the Egyptian manner of expressing the same thing. On the contrary, their early sculptures are extremely similar to those of Persepolis, or, rather, to those recently discovered on the banks of the Tigris, near ancient Nineveh, which, both in the degree of artistic excellence and the mode of expression, are singularly like the old forms of Greek sculpture. Perhaps both these are the development of some

old Pelasgic originals, now lost, or of which only fragments or traditions remain. Could we trust the Greeks, it would seem as if they believed themselves that the art came to them either from Crete or Ionia, either of which would strengthen the idea that it was Pelasgic—or, in other words, Asiatic—in its origin.

Be this as it may, nothing can be more striking than the rapidity with which the art, when once attempted by the Greeks, was developed. Among the oldest pieces of sculpture we have are the Metopes of Selinus (woodcut 65), which were executed, probably, between 550 and 580 years B.C., and are as rude and clumsy works of art as well can be conceived: yet, within a century from this date, the art had passed through the stages of the Eginetan school, and had culminated in the Parthenon; so that a man who had seen the sculptures of Selinus executed, might have lived to know Phidias. So easy is it for mankind to progress rapidly in any art when they are in earnest, and perfectly understand the object they are striving to effect; and no art ever had a more distinct one than the sculpture of the Greeks. The first object was to represent perfectly the human form; this one man's lifetime is almost sufficient to accomplish, if steadily pursued, without any conventionalism, or without an attempt at any other attribute. This first aim the Greeks attained with a degree of perfection that even now astonishes us, for nothing more perfect than the anatomical developement of the figures of the Parthenon can well be conceived; not only is every joint and every muscle perfectly imitated, but their motion and action are indicated so distinctly that we can almost predicate what the next position of the figure would be were it suddenly endowed with life, and the action represented were continued. This, however, with the Greeks, was not the end of art, but subordinate to a second and more important aim, which was to refine the human form into that of a god. According to their ideas of the Godhead they succeeded wonderfully, according to ours they failed most miserably. But we must judge them by their own lights; and even if we deny the divinity of their figures, we must admit that in the attempt they produced the noblest corporeal representations of mortals that the world has yet seen: for the Apollo Belvidere and the Venus de' Medici still stand without rivals from modern art. They do not belong to the highest class of art, for the Venus has no more mind than the Greeks usually ascribed to women; and the Apollo, though the noblest animal ever created, is no more, and attempts no more:

but in their own class they must be allowed to be perfect, till at least something more so is conceived or produced.

Another peculiarity in the history of Grecian sculpture, as compared with that of the other arts, almost as singular as its rapid rise to perfection, is its length of time during which it maintained itself after literature had perished, architecture become debased, and painting corrupt; for, down almost to the Christian era, sculpture maintained something of its pristine excellence, and sometimes attempted something higher than even the school of Phidias sought to attain: as is sufficiently evident from the fact that such works as the Laocoon, the Tauro Farnese, the Dying Gladiator, the Gladiator of Agesias, and others, were executed after the age of Alexander, and some extending late into the Roman period.

One cause of this is, no doubt, the material used in sculpture; for a work in marble requires far more labour, and more time and thought,—far more sober mechanical contrivance and labour than a painting, and the vehicle in sculpture must always be a correct and literal imitation of the human or some animal form: expression and ideas may be added to any extent, but the form is given, and must always remain the same. In painting, on the other hand, harmonious colouring, chiaro-oscuro, perspective, and fifty minor attributes, may be magnified into importance, and lead the painter astray from the true path; but the sculptor cannot deviate to the right or to the left,—there are no tricks in his art, and all exaggerations are easily detected. So that, while the later Greek sculptors were employed in translating into their art the same poetry that had occupied the chisels of their predecessors, we, perhaps, should not be surprised that they did not fall into the same absurdities as the sister arts, but that they maintained a certain degree of purity and elevation to the last.

The worst they could have done would have been to present us with soulless corpses, like the works of modern sculptors, but they were too near the great age to sink to that; and while the form of their art kept them from falling into the general corruption, they could scarcely help adding some mind to the forms they inherited.

Notwithstanding all this, and the common sense which usually pervades every department of Grecian art, they could not entirely emancipate themselves from the trammels of the age; and even among the best productions of sculpture we find absurdities and conventionalities, which nothing but long habit could have enabled them to endure, and which

nothing but education could make us tolerate, much less admire. The winged figures of men and beasts, the chimeras, the gorgons, the satyrs, the hydras, and harpies, the minotaurs and centaurs, are all strange blots among such pure art and so much common sense; the last-named of these, in which the Grecian sculptors seem especially to have delighted, is so impossible and so absurd, it is so evident that it could not have existed, or been fed for an hour; the duplication of every part, except the head, is so monstrous, that one wonders even how they—and much less how we—could ever think it beautiful. But such is the influence of habit and prejudice, even on the wisest and most clear-sighted men and nations, that the absurdest errors pass uneradicated from our minds, and we go on admiring and believing what a moment's calmer thought would teach us to be ashamed of. Enthusiastically as I admire the Elgin marbles, I confess I cannot even now look on them without feeling the presence of the centaurs there as one of the most humiliating facts in the history of art, and painful to observe that a people who could free it from all the trammels of Egypt, and who in the arts generally followed so true and so common-sense a principle throughout, should still here and there shew such bad taste, even in their nobler works.

True, it may be said their whole mythology was a fable and an absurdity,—perhaps it was: but it was so beautiful and so consistent that one may well be excused being blind to many of its defects, and no better was then known; but their puerilities are the remnant of another and more barbarous state of things, from which it would be consolatory to human vanity if they could have emancipated themselves.

In one point of view, however, even these aberrations may teach us a useful lesson in art, and convey a moral consolatory to human vanity; for it is evident from them that art does not reside only in correct or successful imitations of nature, for in these specimens the elegance with which they are executed, the idea which they express, and the animation and power with which the sculptor has endowed them, have sufficed to redeem what otherwise would be revolting: it is an instance among many that might be quoted of a phonetic merit redeeming a technic blunder. And if it can redeem such intentional monstrosities, it is not difficult to see how much more easily a powerful phonetic expression would redeem an unintentional defect in drawing, and in a less perfect mode of technic or æsthetic expression of a truly poetic or

artistic idea. For it is evident that a limb badly drawn, a joint that could not bend, or a muscle that could not contract, can never be so offensive as a being that was a monster from the first, and, even if created full-grown, could not move at all or exist for an hour.

The Greek sculptors seldom attempted colossi, never of men; though a size larger somewhat than life seems to have been generally adopted for the heroes of bygone times, and sometimes for the gods: of the latter, however, colossi did exist, and some of them were the most famous statues of antiquity. In itself there is no great intrinsic absurdity in representing a god ten times larger than a man, and such is by no means an uncommon mode of conveying an idea of greatness; but to a people so refined as the Greeks such a mode bore with it an intrinsic degree of vulgarity, which they sought by every means in their power to avoid, and instead of making their colossi of coarser, or even of the same materials as the smaller statues, they used the most delicate and refined materials, and covered them with the most minute and elaborate workmanship, so that the vulgarity of the mass was lost in the minute elegance of the details. A small chryselephantine statue would be only pretty and rich, but a colossus of the same materials, having size enough to render it sublime, could not by any number of parts be brought within the same category; but, on the contrary, I can easily conceive that the two combined must have produced all that the Greeks so enthusiastically admired in the great works of Phidias, the Olympian Jupiter and Pallas Athenæ.* Such procedure is, I know, diametrically opposed to ours,—we use gold or ivory for our little ornaments, and Portland stone or brick for our colossi; but it is only one of the thousand instances in which we see how the common sense of the Greeks led them to the desired end, and how surely they attained their object. For it is almost self-evident that minute detail on a small object must render it even smaller, but that on an exaggeratedly large object

* We have so few and such imperfect notices of the bronze statue of Minerva Promachos, outside the Parthenon, on the crest of the Acropolis, that it is difficult to understand what it was, or say much about it. It probably was enamelled and gilt, so as to relieve its size as much as possible, and seen from the town or the country it may have been a noble object,

and looked like a worthy crowning object to the city. But in the Acropolis it must have looked more like the vision of a nightmare, and is altogether one of the most questionable objects of Greek art I know of: indeed the ancients themselves seem to have thought so, as they say as little about it as possible.

it may bring it back within the limits of good taste, and render beautiful what without it must be vulgar.

All antiquity is so loud in its praises of these two works that we cannot refuse to admit that they were the greatest works of the best age of the arts, though, at the same time, it must be confessed that we have great difficulty in forming an idea of what the effect of an ivory colossus, draped with garments of cloth and gold, must have been; not only because no specimen of such art has come down to us from antiquity, and none such has been attempted in modern times, but also because we insist in believing that all the sculpture of the Greeks was white; and as we profess to copy literally their art, we are horrified at the idea of painting ours. We jump at once from what we fancy to be the purely Greek art of marble sculpture to the native one of waxwork. The Greeks, probably, had both, but they could not fail to see that perfection did not lie in the cold monumental purity of the one, nor in the mere correct imitation of the person or thing represented, which is the aim of the other. They, seeking earnestly and only after perfection, must early have discovered that it did not exist at the extremes, but somewhere between the two,—where, we shall not be able to say till we try: but as the fundamental idea of the art is essentially an imitative one, I cannot help thinking it will be found nearer the waxwork than the plain marble. We have not, however, one single specimen of the thousand and one links that graduate between these two, and till we attempt or possess some of them to which we can refer as examples, it is in vain to argue the question, or to represent in words an idea that can only be expressed or conveyed to others by material forms.

In this respect, however, I believe the practice of the Greeks was diametrically opposed to ours, and that they generally, if not always, coloured their statues, rarely their pictures,—at least, in the best age. It is true we have few means of judging of the correctness of the latter assertion, except from their vases. In the oldest of these we find them using two, sometimes three, or even four colours, always laid on flat; but as soon as they could they dispensed with this, and in the best age all their vases are monochromatic. Nor do I think it difficult to see the cause of this: in sculpture, a flat colour laid on evenly takes its shadows from the form of the statue; on a flat painting it requires more technical skill than we are, perhaps, aware of to represent these

shadows, and it always leads to a trick and conventionalism, from which painted sculpture is quite free, but which painting has never quite shaken off. Our engravings shew us how easily pictures could dispense with this attribute in modern times, and the Greek vases shew that in those days they could with facility express all they wanted with the utmost elegance and precision with black lines on a uniform ground: and it is difficult to understand why they should have gone out of their way to try and make that appear raised which was flat,—to attempt, in short, a deception that deceived nobody, when they possessed a simple efficacious means without it of expressing what they wanted to express, which was, in fact, the only aim that art ever proposed to itself.

The principal objections to the reintroduction of painted sculpture among us are two: first, that it would heighten any vulgarity that might be in the original work, for it is difficult for even a vulgar man to express his vulgarity in the pure marble; for though it is there, of course, it is latent in the cold purity of the material, but colour would soon bring it to the surface. Another and more potent one is, that, owing to our altered habits of life and dress, our copying as we have done the nude sculpture of the Greeks, has already tended too much to degrade a noble art, to being little better than a pander to a certain degree of sensuality; and painting such statues would heighten that effect tenfold. And if sculpture is always to remain only an unmeaning transcript of an extinct and ill-understood system of art, and we are never to advance beyond the expression of mere corporeal beauty, it seems of very little consequence whether we paint our statues or leave them in their present white inanity; for such an art is utterly unworthy of us, and the sooner it is blotted out of the category of fine arts the better. What is now wanted for this, as for all arts, is the power of expressing the highest class of intellect, and the noblest class of feelings which either our heads or hearts conceive or aim at: if sculpture can do this, let it be employed for that purpose, but I know of no other aim for which it is worth while pursuing it. But so exercised, I feel convinced it would lead to higher triumphs of art than ever the Grecians, in their greatest hour of exaltation, dreamt of.

PAINTING.

So many of the works of sculpture of the Greeks have come down to us, that we can speak of that art with almost as much certainty as regarding their architecture, for we know that many of the works that now exist are the very ones which were most prized by the ancients themselves; and we possess them in almost every stage of advancement, and of every school, though we are not able to ascertain, in every instance, the name of the master who executed them.

With painting, however, the case is widely different; for not one single work of any great master has come down to our time, and we are, therefore, left very much to conjecture in every opinion that may be formed regarding this art in the classic ages. Still it seems tolerably certain that many of the paintings at Pompeii and Herculaneum are, at least, copies from some of the more famous works of the great masters, and some of them certainly shew a knowledge of the art that justifies all the encomiums that have been lavished upon it, and make us doubly regret the loss of the great originals. Besides this, we have innumerable paintings on vases, which, though probably differing entirely both in style and execution from the great paintings, still were, in many cases, no doubt, reproductions of more celebrated works, and probably give us as good an idea of them as modern engravings give of the great pictures they are copied from. Unfortunately, however, in almost no instance can these be identified with the works of which descriptions have come down to us, and even their dates can only be conjecturally ascertained: so that we cannot positively say that such a vase is contemporary with Polygnotus, or Zeuxis, or Apelles. If we could in one or two instances do this, it would throw more light on the history of this art than anything that has yet come to light.

Though thus we are left almost entirely without materials to form a correct opinion of our own on the subject, I do not think there can be much difficulty in allowing that the ancients themselves are the best judges of the matter; and from the estimation in which they held the painters and their works, and from the immense prices given for them, from the age of Candaules to that of Alexander the Great, it is evident that they valued their paintings as high, if

not even higher, than their sculptures; and it is almost impossible to believe that they could be much mistaken in the relative value of the two classes of art.

Still it is tolerably apparent that, in the earlier stages at least, the painter must have been very much behind the sculptor in correct imitation of nature: for even in the Eginetan school the figures, though stiff and devoid of expression, still are wonderfully correct in anatomical developement; while, from the description Pausanias gives of the contemporary paintings in the Lesche at Delphi, we cannot but perceive how deficient painting was in all the accompaniments which we deem so absolutely essential to its success; still we know, not only that Polygnotus was esteemed one of the greatest—perhaps the greatest—of Grecian painters, but it is evident, from the very lengthened description Pausanias gives of these paintings, that, even subsequent to the Christian era, they were esteemed among the finest of his productions, and as worthy of admiration as any works of art in Greece.

Still, from his description, we may safely infer that the figures were painted on the wall one above the other, not with any attempt at grouping or perspective, but all in the same plane, and placed as room was found and required for them, with only a slight attention to the sequence of events which were represented in the same picture, and without any separation to indicate a difference of time. It is more than probable, also, that they were all monochromatic, and painted on a uniform dark ground, without either background or foreground, and standing or sitting on nothing, and that they were quite flat, and unrelieved by any attempt at shadow. Were it not for the beauty of some of the paintings of the vases, which have all these defects besides that of careless and bad drawing, which, probably, was not so apparent here, it would be difficult to understand how any work could be so great and beautiful as these are represented to have been. Still it is only one of the many instances which go to prove how little high art depends on fictitious aids for its effects, and how easily true genius and true art speak to the heart even with the simplest means.

To a modern painter, who is carefully educated in the belief that colour, *chiaro oscuro*, grouping, perspective, &c., are not only necessary but in themselves often sufficient for all the purposes of art, it may appear strange that paintings possessing none of these qualities could be beautiful or great; but herein precisely lies the difference between

ancient and modern art. The works of Polygnotus probably possessed all the fire, all the grace, and all the pathos of Homer's poems, and when the painter really feels his subject, it is astonishing how little artifice is required to enable him to express it; or, on the contrary, how much may be expended by one who does not feel the subject, without his being able to produce the desired effect.

If, for instance, a modern painter wishes to represent a scene from Homer—that at the Scæan gate, for instance—his first care is to choose his models; but even if he could select them from among the best and noblest of the land, they could never correctly represent heroes or heroines in that stage of civilisation which the poet describes: as it is, he must select them from that class which only represents our vice and our degradation; and though his art may be so perfect that he can imitate them so perfectly that we are deceived, and believe they stand out from his canvass and almost seem to breathe, this will never render any picture more than a wonderful instance of technic imitation. If he can add harmonious colouring, and the figures are beautiful in themselves and are beautifully grouped, the work may rise also to æsthetic excellence, but here it must stop; and had Homer only dwelt on the manly beauty of Hector, or the feminine graces of Andromache, or the nascent beauties of the babe Astyanax,—had he expatiated with all the fervour of a modern novelist on the colour of their eyes or hair, or the size or form of their limbs, his works would only have been as ephemeral as theirs. It is not, however, for these qualities that men and nations for so many ages have turned again and again to the poet's pages, and always found renewed delight in the perusal. If a personal description is found in Homer, it is generally merely an epithet, dropped as it were by hazard into the line. But what we do admire is the domestic affection that sits so gracefully on the plumed helmet of Troy's bravest warrior, but cannot move him from the performance of what he conceives to be his duty to his country; and while we know his tenderness of heart, we admire that devotion which neither the entreaties of his wife, the prayers of his father, nor his mother's tears, nor his own hopes or prospects, could alienate from the path of duty; and we feel at the same time the pathos of the scene, from our knowledge that he is about to offer himself an unavailing sacrifice for his country's good. An inexorable fate has decreed

against him, and he feels it; but he bows to the will of the gods with the same heroism which enables him to silence the pleadings of affection or of interest in his bosom. This and the innumerable other incidents besides with which the poet's page is crowded, have little to do with either colour or form, or any of the tricks or even the excellences of imitative art. If a man feels all this, if his bosom glows and his pulse throbs with all the fire of the hero, and his heart melts with tenderness for those who are left behind, if he can thoroughly identify himself with the scene in all its feelings, he must draw very, very badly indeed, who cannot scratch a better representation of it with a pen on a scrap of paper than has been produced by any academician in Europe, with all the appliances of modern art at his command.

It can scarcely be doubted but that Polygnotus felt all this, that he knew and identified himself with the personages he was about to represent as completely as Homer himself did,—perhaps even with a tinge of veneration for their time-hallowed forms, which probably the poet was not imbued with; and it was the representation of the fire or the tenderness, of which his heart was full, that made these pictures so admirable after so many centuries had passed over them, and though numberless improvements in all the technicalities of art had been introduced in the meanwhile.

The true aim of the painter's art is, or, at least, always should be, phonetic; and it is his privilege to be able to tell the story with a sensuous and almost tangible distinctness, which is denied to the author, whose words never can appeal to the senses so powerfully as the painter's arts can do when properly applied: but drawing and colour can never be more than the vehicles of high art, and no greater or more fatal mistake can be made than in supposing they may ever become the end.

Imitative art is, no doubt, to be admired for merits of its own, but it is not that art that speaks to the heart, or that can endure: one touch of nature, one trait of feeling, strikes a chord in the hearts of men, and will touch their hearts while men are men, and long after the conventionalities of art are forgotten and unintelligible.

Notwithstanding, therefore, all their technical defects, I can easily understand that Polygnotus and Micon were as great in their art as Æschylus and Sophocles in theirs; and though the one was obliged to get the chorus to explain what was being enacted on the stage, and

the others to write the names* over their figures, they could speak more powerfully to the hearts of their countrymen, and of all future ages, than Zeuxis and Parrhasius: though these, like the later dramatists, had softened down the rudeness of their earlier predecessors, and made the drama a much more finished, and, artistically, a far more perfect production. But with all this, few, I believe, would now place Euripides or Aristophanes before the two earlier masters; nor, consequently, the works of the painters of the second period before those of the first.

Between this period and that of Apelles still greater improvements seem to have been introduced, as it was natural to expect would be the case. Colouring and correct imitations of nature were, no doubt, carried to a high pitch in the era of Alexander; but Apelles, himself the greatest painter of that day, seems to have been at best but a courtier and a sensualist, and to have gained the suffrage of a corrupt age by acts which the painters of the patriotic era would not have descended to; and though he may have been as great as Titian in some respects, I would rather possess one group from the Lesche at Delphi, than all the deified Alexanders or Phrynes he ever painted, and which the servility or the sensuality of his age so much admired.

The description of Pausanias and others have left no doubt how universally the walls in the interior of the cells of Grecian temples were adorned with paintings, and modern discoveries have now established the fact that the architectural mouldings and sculptures of the exterior were also adorned in the same manner; but the learned do not yet seem to have sufficiently turned their attention to the question as to whether the exteriors of the cells were not likewise similarly ornamented. For my own part, I have but little doubt that this was the case; though, owing to our imperfect information, and the exposed situation of such paintings, we have neither the means of proving from history or from observation that such was the fact.

* This writing of the names over the figures has been objected to in these paintings, as indicative of a very rude state of art: it was, however, an advance on the Egyptian, where the figure was obliged to tell all the story for itself; or the Assyrian, where the whole story was written out between the groups; and even with ourselves we always attach a legend to our engravings

to say who the persons represented are, and what the action is. We never do this with our paintings, it is true, but why we should make the distinction, they may explain who know, I do not: unless, indeed, it be to make a little money by selling catalogues,—an intelligible motive, it must be confessed, but not one connected with high art.

In the first place, it is (to me, at least,) impossible to conceive that it should have been otherwise; for with the painted sculpture above, and the painted architecture around it, the plain white wall of the cell must have been a discord that no Greek could submit to, and which would shock even us if we saw a temple painted to the extent we now admit they were painted. In the second place, there is no part of a Greek temple so admirably adapted as this is for the display of painting in the Greek style, where one painting displays the successive scenes of a drama, and does not confine itself to one scene and one moment of time, as with us; and where, consequently, the interruption of the continuity by the pillars would be rather desirable than otherwise. And, again, it is difficult to understand what was the use of the peristylar colonnade if it was not to shelter the painted walls, for the Greeks never did anything without a meaning.

Owing to their exposed situation, all these paintings have disappeared; so have the internal ones, the existence of which no one doubts. But on some temples the stucco has been found, and at Egina and elsewhere painted red; from which it has been assumed that the whole cell was painted in that colour: but is it not much more consonant with Greek taste to suppose that this was merely the ground on which the historical or mythological scenes were painted?

And, lastly, the analogy of the Egyptian temples is very strong in favour of this view; for they, we know, were always adorned in this manner, and, indeed, their principal effect depended on the painting of their external walls. From the serenity of their climate, however, and the *intagliata* method they adopted, they were enabled to expose them without danger to the weather; but though the Greeks were obliged to shelter them by a colonnade, it is extremely improbable, knowing how intimately they were acquainted with all the arts of the Egyptians, that they should have omitted adopting one of the most obvious and most beautiful of their decorative arts.

Still I am inclined to believe that, owing to the greater liability to injury, the more beautiful and elaborate paintings were on the interior walls of the cell, and that only processions, and emblems, and such-like, were painted externally; and I look on the Panthenaic frieze as a repetition in marble of the paintings that adorned less elaborately ornamented temples. In the Parthenon it is placed where sharp shadows and relief were required to give the necessary effect; and placed over

the flat paintings on the wall must, with the bolder relief of the metopes, and still bolder sculpture of the cœtoi, each shadow becoming deeper and bolder as it receded from the eye, have formed an exquisite gradation of effect; and with the golden shields, the embroidered peplus, and the other ornaments, have formed a perfect combination of all the arts, that nothing that has since been executed can aid us in conceiving.

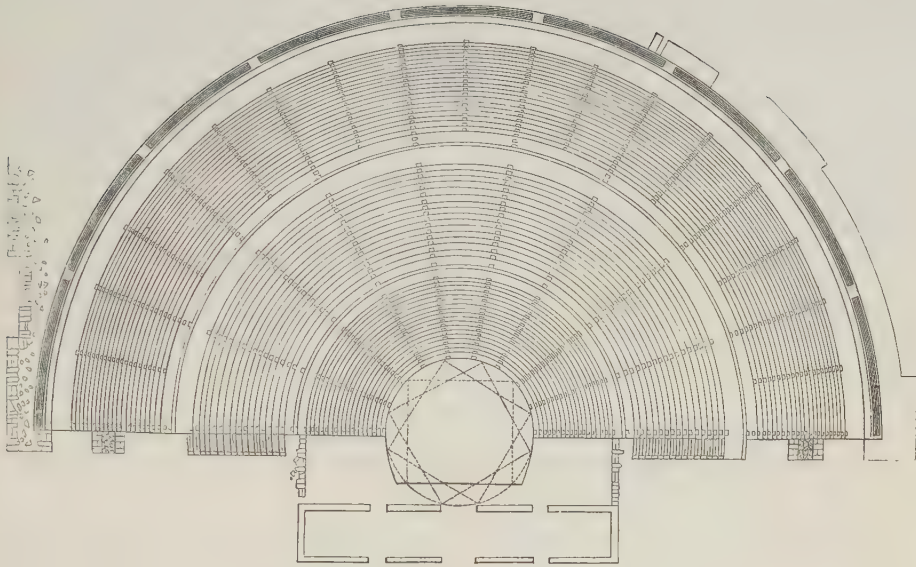
It would lead me far beyond my limits to attempt to point out, or even name, all the various forms into which the fine arts of the Greeks were moulded during the time they existed in that country. We conveniently classify them under three or four heads, and think that suffices; and so it does for us, and would do for our arts: but with the Greeks, who never thought of technical classification, but sought beauty in everything,—it was not only in marble or in colour that they found it,—the same feeling pervaded all they did, and produced similar effects in everything. With them carving in ivory, casting in bronze, chasing in the more precious metals, engraving on precious stones, all formed fine arts, in which they attained the same expression as in their marble sculptures; and even the art of forming and ornamenting fictile vases of clay rose to a dignity with them which none of our great arts can equal; and, owing to the fortunate circumstance of the Pelasgi burying them with their dead, it is one of the few of their subordinate arts of which we have sufficient means of judging correctly: but it was far, I believe, from being considered by them of the same importance as this circumstance has rendered it with us. And in their dresses, their embroidery, their furniture and utensils,—in everything, in short,—I believe the Greeks to have sought for and attained the same high degree of beauty and excellence.

Without this universal feeling of beauty, it is evident they never could have attained the perfection they did in any one branch of art; and herein lies one of our great mistakes, in our attempts to encourage the arts among us. We insist on having pure Greek sculpture, which a man is to take home and place among Rococo Louis Quatorze furniture, or the tawdry fittings of a modern drawing-room: we want high art in pictures, but never think of it in minor matters. As well might we attempt to perfect the human mind by encouraging and insisting on one virtue, heedless if all the rest were corrupt and dark; or to think

we have educated a pupil by thoroughly impressing on his mind one great fact, or class of facts, heedless how ignorant he is of all others; as well might we attempt to build ships and steam-engines without attempting to encourage the commerce necessary for the employment and success of the one, or the thousand and one mechanical contrivances which render the other necessary and useful. Ships and engines are not things apart from our commerce or manufactures, but only great facts resulting from them; and so the sculpture and painting of the Greeks were only necessary developements of their system, and of the objects they sought through every channel and in every art.

In our useful arts, we, as I have said before, follow exactly the same process the Greeks followed in their fine arts. No vacuity or gap is left in the whole range of them, but all work together towards one great object, each borrowing from the other, and assisting all the others to attain the one thing sought for; and, what is of more importance, every art, every engine, or tool, is left to perform exactly that function it is best fitted to perform, and no one ever thinks of employing a less perfect means, or less perfect tool, to do anything for the performance of which any better process exists; even though it should be proved that Greek, Roman, or Goth were all unanimous in setting to work about it in some very different manner: hence our success in the useful, and our failure in the fine arts. When we attempt to elaborate beauty out of the former class as earnestly as we now look for profit in them, we shall not be long without finding it; but I know of no other process by which it is worth while making the attempt.

No. 66.



Greek Theatre at Dramyssus,—Dodona.*

DRAMA.

Before leaving this part of the subject, I must say a few words regarding the Drama; for the cycle of the arts of Greece, which arose from the epic poetry, returned naturally into itself by means of the drama,—the youngest, but the most perfect of the arts of the Greeks, and far more perfect than we have now the means of estimating; for we have no means of forming correct ideas either of the mode or of the excellence with which it was represented, but, judging from the importance they attached to the structure of their theatres, and the pains and expense lavished on the representation, they could scarcely be less perfect and beautiful than the written words which still excite our awe and admiration.

* The above plan of a Greek theatre is not inserted with any idea of entering on a disquisition regarding the many disputed points involved in the construction of such edifices, as that would be entirely out of

place here, but more to serve as a scale of comparison as to size with the Amphitheatre of Titus, and the other edifices which are drawn to the same scale throughout this work.

As in every thing else, the Greeks, as a matter of course, lay claim to the sole merit of the invention of the drama in all its forms; though, had we the means of inquiring as closely into the merits of this question as we have of most others, we should, probably, find they had as little right to the honour as they have to the merit of having invented the other arts to which they lay claim. Unfortunately, however, our Egyptian lore fails us entirely in this matter, as on the subject of epic poetry; and there is certainly strong negative proof against the assumption that the Egyptians had any knowledge of dramatic entertainments. The Etruscans, however, had histrionic representations,—what they were we do not exactly know, nor how early they practised them; the probabilities of the case, as well as tradition, would lead us to believe that, like all their other arts, they brought them from their mother country, and practised them from the earliest periods; at all events, we have no trace of their subsequent introduction, and no tradition of their invention by themselves.

If they knew them at such an early period, the Lydians, of course, practised them still earlier; and if the Etruscans and Lydians had dramas thus early, the Greeks evidently could not have remained ignorant of their existence and form. Still, notwithstanding this, I look on the Greek drama—or, to speak more correctly, the Greek tragedy—as the most truly original of all the Greek arts, and the one to the invention of which they had the best claim. Or, at all events, it is the one in which we can best trace the steps by which it arose from the rude worship of a barbarian people to become the most refined mode of expression of the most cultivated nation of antiquity.

First we find the chorus, or dance (accompanied by a hymn and instruments), of the whole people of a city assembled in the market-place,—whence its name; then the dance of all the men capable of bearing arms, a part of the military organisation of the Dorians; and then the separation of the people into spectators and trained dancers. Again, we can trace the union of the lyric hymn of Apollo to the dithyrambic ode to Bacchus; and then the separation of the chorus into strophe and antistrophe, and then the addition of the epode; and, again, the dialogue between the choragoi and exarchi of the chorus, apart from the hymn; and, lastly, the separation of the chorus into these speakers and the choreutæ, a division as important as the earlier one into chorus and spectators: these divisions and institutions completed all that

was required for the invention of the forms of the Greek tragedy, and their being completed before the era of the Persian war, when everything the Greeks did was great, and all they touched became, as if by magic, beautiful, it could not be otherwise than that the drama of the Greeks should become what it was.

In a Grecian community, a theatre was quite as indispensable a building as the temple itself, and generally must have cost as much labour to erect; not, indeed, from any amount of architectural embellishment or detail lavished upon it, but from its great size and the immense mass of materials required to provide accommodation for from twenty to forty thousand individuals, which they were generally capable of containing. As we see them now, deserted and in ruins, the temple is, of course, by far the most interesting relic of the two; but if a Greek, in the days of the prosperity of Athens, were asked the question, Which of the two was the highest and most perfect monument of art? I do not doubt he would declare for the theatre; or, if he did not, I can only say I am mistaken in my belief of the perfect appreciation of art which I believe the Greeks to have possessed. We are so apt to look on the temple as a purely architectural form, and the drama as a purely verbal one, that it is very difficult indeed for most people so to divest their minds from this preconceived idea as to be able to conceive them as groups of arts closely allied to one another, and differing only in arrangement and in the degree of pre-eminence given to one art over another. According to my view of the matter, in the theatre the phonetic art of poetry was the principal one. Sculpture, in the form of draped and masked figures, came next, but were subordinate and in a less perfect or durable form than in the temple, though, perhaps, scarcely less beautiful at the time. Music on the stage was the harmonising or æsthetic art, performing here the same office that colour did in the temple: and, lastly, architecture on the stage was completely subordinate, and scarcely can be said to have taken a more prominent part than any phonetic inscription or the formula of prayer spoken by the priest did in the temple. If, therefore, we arrange them in a tabular form we have—

For the Theatre.

1. The Phonetic art of Poetry.
2. The Æsthetic art of Music and Colour.
3. The Technic art of Architecture.

For the Temple.

1. The Technic art of Architecture.
2. The Æsthetic arts of Colour and Form.
3. The Phonetic art of Sculpture.

Omitting, of course, many indications of the other arts, all of which were more or less employed, and taking only these three as typical. So that, assuming the two æsthetic groups to be equal, or nearly so, either my criticism is entirely at fault, or there can be no hesitation as to which group is the highest and best.

Or, reverting to the numerical mode of criticism alluded to in the Introduction (page 140), we have for the drama,—Technic—for architecture and all the mechanical excellences of the exhibition, say 2; Æsthetic—for beauty of form, of colour, and above both these for the music, perhaps also allowing something for the odours of the incense, say 4 or 5; and for the words, as the Phonetic part, certainly not less than 5 or 6. Thus making the drama of the Greeks rank as 27 or 28. Whereas the temple, as I before stated, could not rank higher than 24; and as, on the whole, it is probable that the technic merits of even the finest specimen—the Parthenon—surpassed the æsthetic, and they the phonetic, it may only be entitled to rank as 22 or 23: but whether this is exactly correct or not, it is evident they are only different ranks in the same scale, differently composed groups of the same arts, in one of which the highest class of ingredients prevails, while the other chooses a lower grade, but not less perfect in itself than its more intellectual compeer.

Be this as it may, if we look closely at the subject of the arts of the Greeks, it is easy to perceive that had their drama not existed there would have been a gap in the circle of their arts, as evident as that in the affiliation of animals which is now gradually being filled up by the discovery of fossil remains; and if it had not been thus supplied some other analogous art must have taken its place. What was wanted was some exhibition where all the arts could take a part so as to make up a great whole. This, it is true, was partially effected at the Olympic Games and other great artistic congresses of the Greek nations, but there every art appeared separately and for itself, and was exhibited in succession, just as various pieces of instrumental or vocal music are performed in a modern concert, without the least reference to any connexion between them. What

was wanted was, besides this, an art which would mould them into a whole as these, as similar pieces of music are made into one utterance in the opera.

It is also true, that this had been effected to a great extent in the temple, where, as I said before, the phonetic arts of painting and sculpture were grouped into one by the technic art of architecture, and almost all the subordinate arts of decoration were employed to harmonise them more perfectly; but what the great technic art did here, the great phonetic art of poetry did on the stage, and, by attracting to itself painting, sculpture, music, and architecture, with the minor arts, it, no doubt, formed a higher group than even the temple. It is true, that half of what appeared on the stage was ephemeral and passed away with the representation, while the arts of the temple had certainly the advantage of durability; but we now have only the skeletons of either—the words of the drama, or the masonry of the temple. They are noble fossils; but it requires no small study and thought to be able to supply, even in the most indistinct form, the flesh and blood with which they were once covered. Between these two was ranged the whole art of the Greeks; some scarcely less technic than the mere pillars of the Parthenon, some almost as phonetic as the mere words of the dramatist, never used by the Greeks solely or entirely by themselves, but fading by almost imperceptible shades into one another, through all the grades of the long scale of technic, æsthetic, and phonetic arts; and, I need scarcely repeat, these were the highest that approached most nearly to the upper or phonetic extremity of it.

To us, who can all read and write, and are in the habit of practising these arts daily, and who, consequently, have become so familiar with the mere verbal forms of expression, it is difficult to understand how little meaning mere written words often convey to those as unfamiliar with that mode of representation as the Greeks were, and how inevitably they demand some more imitative forms to convey the meaning to them. When they painted a picture, the names of the actors seem almost invariably to have been written over them, and if the name of the action represented was also there, or known, the whole was easily understood; and the same, I believe, was the case with their sculpture: and whether this inscribed representation, or the moving and speaking statues

on the stage, best expressed the meaning of the Greeks, is a question each must decide for himself. For myself, I have little hesitation in declaring for the stage; and so would all, I believe, if they could banish from their minds the idea of the vulgar men and women "who strut their hour" on our stages.

To realise a Greek scene, it must be borne in mind that the costume, the cothurn, and above all the mask, completely obliterated the individuality of the actor, who was thus transformed as completely into the conventional and approved representation of the mythic character he was to personify as the plastic clay of the sculptor could be, remembering, also, that the statues of the Greeks were painted, not cold white marble as ours are.

The words of the tragedy, though lofty and sometimes impassioned, are always measured and formal, and the action that accompanied them, guided and modulated by music, could only have formed, with the chorus, a series of slowly-changing tableaux, any one of which, if petrified on the instant, would have formed a group of Greek sculpture in its form and proportions, differing only from it in the ratio of the greater or less degree of perfection in which the drama was represented.

In speaking of the sculpture of the Greeks, I said that pure unpainted marble sculpture formed one end of a scale, and mere imitative wax figures dressed in real clothes the other, in some of the innumerable grades between which extremes perfection probably lay; and this is as true and as applicable to the drama as to sculpture: but though we have chosen the pure and monumental end of the scale for one art, we have adopted the waxwork end for the other, though if we thought like intellectual beings, instead of copying like monkeys, we could not long fail to perceive that what is true and right in the one is true and right in the other also.

This is still more true, or, at least, more easily appreciated, with regard to our art of painting than even with the drama; for nine-tenths of the merits critics usually find in our pictures arise from this waxwork-like correct imitation of nature, without reference to any higher or more poetic element of art: but if minute correctness in imitating nature really is a merit in painting or the drama, it is equally so in sculpture, and either we ought to practise it in both, or, what I

believe would be the better path, aim at a higher mode of utterance, and come down from our stilted affectation of purity in the one, and rise above our merely mimetic excellence in the other.

In our drama the great aim is not only, in the scenery, all the arrangements of the stage, and in the costume of the actors, but also in the acting and the words, to reproduce, with as correct an imitation as possible, the scene as it might have occurred outside in the real world. This the Greeks never dreamed of attempting, for in nothing did they shew more evidence of true taste than in their thorough contempt for mere imitative art. Their drama was a selection from all their arts, combined in the best manner they could conceive; and in judging of it we must try and determine whether they gave too great prominence to one, or omitted any other which would have heightened the effect. Thus the stage was adorned with architecture, but the part it played was subdued and very subordinate, and from being unchanged could attract but little attention from spectators long familiar with it. Music, on the contrary, with dancing, were very much more important, and pervaded the whole performance, giving the rhythm, connecting and (if I may use the word) framing all into one modulated whole; perfumes, also, probably were (must have been) burnt on the altar. The plastic part, or the grouping and slow-measured motions of the actors, and their combination with the chorus, seem next in importance; and, above all these, came the words of the dramatist, which explained and gave a meaning to all that was passing on the stage, but not attempting independence of utterance, though, perhaps, pre-eminence. If any art was omitted, or interfered with another instead of assisting to make a whole, or if any one was wrongly pre-eminent, the Greeks were to be blamed. But I cannot but think that so honest an endeavour to produce perfection, guided by such taste as the fragments that remain shew the Greeks to have possessed, must have gone as near to it as any thing we know.

The Italian Opera more nearly resembles the theatre of the Greeks than our common dramas; but in this the music has been allowed almost entirely to supersede the higher phonetic utterance, and mere imitative costume and acting to banish entirely any attempt at more artistic forms of a higher class of beauty: so that it must rank, even in its highest perfection, very much below the more ancient forms. Even, however, if this were not so, the class of persons we employ (with the

fewest possible exceptions) to perform our operas and plays is in itself sufficient to take them entirely out of the category of a possible comparison with the ancient dramatic representations of the Greeks.

With that exquisite feeling for art which characterised all the Greeks did, they were, even if possible, more fortunate in the choice of their subjects than in the form they gave their dramas. In carefully avoiding the present, which must be, of necessity, more or less vulgar, they sought their subjects in that mythic period which preceded the return of the Heraclidæ, and which had been already hallowed by their epic lays; and even here, not individual suffering was the subject of their poems, but a nation's struggles and a nation's fall. With our drama, if kings are represented, they suffer as men—as the lowest of men might or do suffer; and though the poet may choose them as adding dignity to the subject, and taking it out of the common sympathies of the spectators, still their misfortunes are those brought on by their own individual conduct, and we sympathise with them as we should with those around us. But with the Greeks this did not suffice. The gods themselves interfere in the action, sometimes *in propria persona*, but oftener through the intermediation of a seer, or prophet, who announces their decrees to mortals. The *dramatis personæ* are always of the ruling families,—men great by position and from the mythic interest with which national traditions have invested them; and the chorus, to complete the whole, represents the governed, sometimes remonstrating against the acts of their superiors, sometimes even daring to resist, but at others terrified and abject,—always speaking the common sense of the nation, and judging, as men do judge, fairly and strongly of the actions of their superiors, but seldom possessing the courage to give effect to their better feelings. It was thus, by bringing gods, kings, and people on the stage, that one of the great means was attained by the Athenians of raising their drama to the high standard of excellence that was required for it. But it was not enough that a nation should assemble to witness the representation of a nation's fate; more than this was wanted for that sublimity the Greeks hankered after, and they found it in the secret that in prosperity man is never great, but is always so when strongly struggling against opposition, when boldly meeting difficulties which appear overwhelming. Greater, they thought, when, unshrinking, he dares and defies even their gods themselves; but greatest when he stands unappalled to meet the inevitable decrees of a mysterious but unalterable fate.

something he cannot see, feels he cannot escape, and still braves with unyielding constancy.

The curse that hung on the devoted Pelasgic houses of Pelops and of Labdacus has furnished subjects for almost all the Grecian tragedies; and even we can bear witness to the interest with which we see them hurried on to meet their inevitable doom, and perish. But Æschylus attempted even more than this; his "Prometheus" suffers, not only because *he must* but because *he will*. Great he will be, and neither gods nor fate can force him to retire; suffer he must, but by suffering he will be great. Great he must be, as the greatest, and conquer even his indomitable fate.

Our modern literature is not pitched to so high a key, and we can now scarcely follow so lofty and so daring a flight as that attempted by the earlier Greek tragedians; nor can we even comprehend what they expressed or aimed at. All that now remain to us are the fleshless skeletons, which can only convey to our minds but poor disjointed images of the impressions which their living forms conveyed to the minds of the Greeks; but it still is no small privilege to be able to contemplate and study even the fragments of so natural and so perfect a form of beauty as that which was elaborated in the most perfect works of the most intellectual people of ancient times.

It is a form, it is true, that has passed away and cannot return again. But the forms of beauty are numerous as the stars of heaven, and when one sets in the west it is only that others may rise from the east not less bright than those that have disappeared; and the smallest star is a more beautiful and more sublime object to him who understands its meaning and its beauty, than is the sun itself to him who turns only an ignorant and listless gaze upon its splendid orb.

There is no star in heaven that we might not magnify till its brightness eclipsed that of Greece, but as the case now stands the star of Greece is the most brilliant that has yet appeared above the artistic horizon of the world.

Taken thus altogether, I think there can be very little doubt that the arts of Greece present us with the most complete and perfect cycle which the records of our race have yet furnished us with. This, of course, may be disputed with regard to any individual

art, or branch of one; but if we take them from the earliest epic ballad of the wandering bard, through architecture and the other technic arts, to their æsthetic developement in all the varieties of sculpture and painting, till the circle returns into itself again through the means of the perfected drama, we have a more complete and perfect cycle than has hitherto been elaborated.

It might have been otherwise; and had we cultivated the arts of the middle ages down to the present day, with the same earnestness and honesty which was employed in their elaboration from the thirteenth to the sixteenth centuries, they would have surpassed those of Greece in grandeur of conception and magnificence, as far as modern Europe excels Greece in size and population, and in purity of purpose and highness of aim, as far as Christian morality and philosophy excels that of those Pagan nations. Unfortunately, however, our epics never were moulded into completeness or form, but remain as fragmentary sagas or chivalric ballads. Our lyric poetry never advanced beyond the lay of the troubadour or wandering minstrel, and our drama perished before it left the temple, where it only existed as a subordinate religious ceremony, and never was allowed to assume an independent existence of its own. The same is true regarding painting and sculpture, which had not become independent arts, cultivated by themselves for their own æsthetic or phonetic powers, but remained still subordinate to architecture; which last alone, as a technic art, had been fully developed in all its essential parts, though it had, in no instance, received that perfect elaboration and polish which only a higher state of civilisation could bestow upon it. Still, all these arts were, in the middle ages, sketched out with a boldness and variety of design, and with a grandeur of conception, to which Greece was a stranger even in her best days, and had they been completed we should now be able easily to despise the classic arts. Unfortunately, however, before this noble tree flowered, and long before it bore any fruit, it was cut down by a horde of muddle-pated pedagogues, to make room for some half-fossil exotics they wished to have cultivated in its stead, and a paradise of beauty was turned into a very indifferent kitchen-garden, which has, it is true, supplied most of our corporeal wants, but left our minds without food or nourishment. We are now beginning to regret this, and determined to root out these exotic weeds; but we do not know what the true tree is which we should

plant in their stead, and we have, I fear, scarcely patience to wait till it grows and bears fruit. Were it of full and vigorous growth, that of Greece would appear poor and stunted by its side; but till it flourishes we must accept the arts of Greece as the only complete cycle we know of which really received all the elaboration it was capable of, and, as such, it forms not only the most beautiful artistic utterance we can contemplate, but the most useful lesson we can study; except, indeed, for those who have either knowledge or imagination enough to rear the required superstructure on the gigantic foundation that was prepared for it in the middle ages.

CHAPTER IV.

ETRURIA.

INTRODUCTION.

WHEN first I turned my attention to the study of the antiquities of the Etruscans, finding almost every modern author I took up concur in rejecting the Lydian origin of this nation, I, of course, bowed to the superior knowledge and experience of the great names, who, though differing among themselves as to the country whence the Rasena came, seem to have agreed only in rejecting what all antiquity affirmed.

While under this impression, the subject continued to be to me a mystery as deep and unintelligible as their still undeciphered language, and I was forced to assume, that as their language differed from all other languages on the earth so their art and religion differed from all other arts, not only in form but in spirit, and that their origin must ever remain a mystery and a riddle; and it was only when in despair I turned to the tradition of history, not in the hope of finding it correct, but of tracing the origin of the error, that light broke upon me; and, following it steadily, it appears to me that there are few facts better authenticated at this remote period of history, than the Lydian origin of the Rasena and of all their civilisation. To me the only puzzle now is, how it ever came to be doubted, and that not by one but by almost all those who in modern times have applied themselves to the subject.

In the first place, the testimony of the historians of antiquity is almost as unanimous in asserting the Lydian origin of the Etruscans as the moderns are in denying it; for, on the one hand, we have the distinct authority of Herodotus, Strabo, Pliny, Seneca, Plutarch, Pater-

culus, Tacitus, Appian, and Justin; and, opposed to this mass of great names, only Dionysius of Halicarnassus and Hellanicus of Lesbos, both very doubtful authorities, and whose testimony on any important point would scarcely ever be taken unless supported by strong collateral evidence, which, in the present instance at least, does not appear to exist.

Having rejected the ancient theory of the origin of the Rasena, scarcely two of the modern authors are agreed as to where they should bring them from; some assuming that they are aboriginal,—a theory for which there is not a shadow of authority, and for which I cannot quote even a plausible argument: even, however, if it was assumed to be correct, it would prove little or nothing; for, even if their blood were Italian, it would be easy to prove that all their arts and civilisation are foreign and imported, and it is to those that we have to look, and of those that we are now speaking.

Another and more tenable theory is that which brings them across the Alps into Italy, and though this avoids half the difficulties of the other, in making them foreigners, still it is equally unsupported by either history or tradition; and nothing is more improbable than that a people could have come along that high road of the nations from the east and left no trace on their route; and, even after they came into Italy, that they should not have rested in the valley of the Po, but gone on steadily, without stopping or looking to the right or left, till they settled between the Arno and the Tiber, where we afterwards find them: and though it is true that they afterwards had cities in Lombardy, we know that they were offshoots and colonies from the twelve cities of Etruria proper.

I have stated above (page 264) my own belief that the Etruscans were a branch of that great and now nearly fossil Tartar family, whose remains exist over the greater part of Asia and Europe, but who are, and always were, totally distinct from the great Indo-Germanic tribes who superseded them; and also from the Semitic races, though these last were so mixed up with them in their aboriginal seats, that it is not always so easy to distinguish between the Semitic and Pelasgic families as it is between the latter and the Indo-Germanic races. In Greece, the Pelasgi were so early obliterated, that at the time when the historians of that country wrote they were ignorant or forgetful of the distinction; and, in truth, that country had received so many and such heterogeneous colonies from

Egypt, Phœnicia, and other parts, that the races, probably, did not then exist in the same distinctness and purity in which we find them in Italy. In this latter country, however, we have no difficulty in distinguishing between the Indo-Germanic and the Pelasgic races, as only these two seem ever to have existed in that country; and the latter remained from first to last as distinct and exclusive as if they were a foreign people, using only their own institutions, and speaking their own language, which scarcely seems to have been understood by the others, who were, so far as we know, aboriginal races.

The only tribes with whom the Etruscans seem to have mixed were the Umbrians, who entered the country, apparently from Gaul, some three centuries before themselves. They were, however, dispossessed of their newly-formed settlements by the more civilised Asiatics, but they lived with them in peace and amity, as a conquered but friendly race, in those cities they had founded but could not maintain against their foreign masters.*

The other tribes—whether known as Sekeli or Sabelli, Oscans or Ænotrians—seem all to have been powerless and barbarous tribes of Indo-Germanic (or as we call it, Latin) race, and to have remained scattered over the country till they were united into one community, under the rising power of Rome; and as Etruria became old and decayed, they used the lessons and the arts they had learned from that people to raise themselves and depress her.

The influence of Etruria on Rome was, indeed, great, and half her arts and civilisation were inherited from that people; but the Indo-Germanic savages who inhabited the country when the Etruscans first landed there were far too barbarous to have any influence on their more polished invaders: and hence, notwithstanding that so much in Rome was Pelasgic, nothing in Etruria, till a very late date, was Roman. When once we have mastered the arts of Etruria, there is no fear of confounding the one with the other.

Indeed, though such names as Micali and Niebuhr are found among the most recent writers on the subject, advocating either their aboriginal descent, or their coming to Italy by the route of the Alps, most authors have found so much difficulty in assenting to those theories, that they

* It is to them, probably, that we owe | and sometimes overlying, the Pelasgic walls
the Cyclopiæan masonry we find mixed with, | of the Etruscan cities.

have admitted so much of the traditions of the ancients as brings them to Italy by sea, and the only question is, Whence they came? Many, looking at the Egyptian element that is found in all their arts, have hastily assumed that they came from that country. But this, again, is purely a modern invention, unsupported by any testimony; though among a people who kept such accurate records of all the events of their history as the Egyptians, some trace of this fact must have been found among their annals, and could not fail to have been detected by the Greeks in later times, when they had access to them, and the origin of the Etruscans had become an object of curiosity. Besides, though it is true that an Egyptian element runs through all the arts of the Etruscans, still there has not been found in all Etruria one single object of purely Egyptian character, or one that would not excite surprise and perplex us if found on the banks of the Nile (I except, of course, some scarabæi of the age of the Lagidæ, which were, probably, imported): indeed, so distinctly is this the case, that I do not think the theory could be maintained by any one who had been in Egypt, or was thoroughly imbued with the spirit of Egyptian antiquities: in every phasis the Etruscans appear as an aristocratic, alphabetic people, and differing from the Egyptians in every essential particular, though resembling them superficially in many minor details. And when we recollect that Egypt possessed Asia Minor, whence they migrated, for five centuries anterior to their leaving it, we should rather be surprised that we find so little that is Egyptian in their form and art, than that we can occasionally trace a semblance of imitation of the arts of the Egyptians in those of the Rasena.

No one contends that they came from Phœnicia, nor from Greece; and unless, therefore, they came from the shores of Asia Minor, I know not from what part or place it is possible they could have come.

It would require, however, a volume larger than the present one to attempt to disprove half the arguments that have been urged against this view of the case, and to prove half the propositions that might be urged in its favour; and I must, therefore, content myself here by assuming it to be the correct one, leaving the proofs to appear in the sequel, when speaking of the arts of these people, and allowing it to rest more on general probability and coincidence than on any close or detailed argument.

Without, therefore, entering into any minute inquiry regarding the

Rasenas,* I will only state here that I believe them to have been a people of Lydia, or, at least, of Asia Minor, who, about a century after the date of the Exode of the Jews from Egypt, or about as long before the Trojan war, in the age of Ninus the Assyrian, emigrated by sea from Smyrna, the only port of Lydia, and landed and formally settled in the country of the Umbrians, between the valleys of the Arno and Tiber, where they built or occupied twelve cities, in which they continued to dwell till a redundant population forced them to send out twelve colonies to the northward; where they settled, as subject cities of the League, in the valley of the Po; and subsequently as many more to the southward, who settled in the country afterwards known as Magna Græcia.

The Greeks, who would willingly have us believe that they invented everything, have insisted on the Argo being the first vessel that navigated the seas between Greece and Asia. Our knowledge of the maritime power of the Pharaohs—of the nineteenth dynasty, at least—and of the Phœnicians, proves how frequent nautical expeditions were long before this date; and, indeed, in their own annals, the arrival of Danaus and Cadmus are alone sufficient to prove that colonies went forth from the east towards the west long before this. And there is nothing more probable than that the redundant population of Lydia should have sought a new home in Italy, as the Phœnicians and Phrygians had done in Greece; particularly as we know that at the time of the Trojan war the Lydians were so considerable a naval power as shortly after that event to assume the command of those seas,—at least, if we may trust the Canons of Eusebius.†

* It is sometimes assumed that they came from the city of *Resen* (that Nimrod built), an assumption founded solely on the nominal similarity of the name of the people and town. If I thought such assumptions of value, I would feel much more inclined to deduce it from *Roteno*, or *Ro-te-no*, as the name of a people of Asia Minor has been read in hieroglyphics on the monuments of Egypt, and which might as easily be read *Rotena*, or *Rosena*, *t* and *s* being continually interchanged in these languages,—as *Sur*, for *Tyre*, &c.; but such deductions, unless supported by strong collateral evidence, I consider as of little

value, though useful sometimes in hinting a truth. Their coming from *Resen*, however, would rather tend to confirm my view of the matter than otherwise, as to their being a people of Asia Minor, identical with those inhabiting Lydia, driven out by Ninus, and embarking at Smyrna. If *Resen* and *Larissa* are the same city, as is generally supposed, the last name would go as far as a name can to prove that *Resen* was a Pelasgic city at least.

† *Maris imperium post Trojanum bellum tenuere Lydi per annos 92, A.C. 1168; 2° Pelasgi per an. 85, A.C. 1088, &c.*—Eusebius, p. 169, editioni Mai.

This view of the origin of the Etruscans solves at once one of the most difficult as well as one of the most interesting problems of ancient history, inasmuch as it proves that both Greece and Italy received their civilisation from the same source, and thus accounts for the great similarity that exists between the arts and civilisation of the two countries in the earlier ages of their existence. At the same time, however, that Greece began to be influenced by Asia Minor, she received settlers from Egypt under Danaus and Cecrops, and colonists from Phœnicia under Cadmus, who must have contributed considerably to the improvement of the barbarous aborigines: but, at the same time, it is evident, as I attempted to shew in speaking of that people, that the substantive form of her civilisation, as we find it at the time of the Trojan war, was given to her by the intimate connexion that existed between the royal families of Argos and Bœotia and the princes of Asia Minor, as well as from the continuous relations of war and peace that existed between the two countries from, at least, the time of the expedition of the Argonauts till the fall of Troy.

In Italy, on the contrary, no foreign colonists seem to have landed, and none, indeed, of the more civilised nations of that age seem to have interfered with or influenced the aboriginal Indo-Germanic races till the Rasena landed on their shores, bringing with them the institutions and arts of their mother country; and though, therefore, we may assume that their institutions would be, as we find them, more purely Pelasgic than those of Greece, still the similarity is so great that it is difficult to discriminate between the one and the other; and, in almost every instance, in attempting to elucidate the Homeric or Hesiodic poems we may refer as safely to Etruria as to Greece, and far more safely to the former country than to anything found in the latter after the Dorian invasion.

In both countries we find the same absence of temples, which also characterised the country whence the Pelasgi came; and also the same reverence for the same oracles, and the same respect for augury, which formed the principal part of their religion. In all these countries, the principal architectural remains are tombs, and these so similar in construction as to be almost identical. The people worshipped the same gods, under almost the same names and with the

same rites; had the same mythology and the same demigods and heroes, the principal of whom, Hercules, belongs as much almost to Lydia and Italy* as to Greece, though the latter country has by its inimitable literature been able to appropriate the lion's share to itself; and, indeed, it would be difficult to point out one essential point in which either the religious institutions or arts of Greece, before the return of the Heraclidæ, differed from those of Etruria. Their fate, however, was widely different. In Greece, that civilisation was entirely overthrown and destroyed by the Dorians before it reached its acme: in Italy, on the contrary, it flourished undisturbed till it reached such perfection as it was capable of, and then perished under the influence of Rome, before Greece had again reached the point at which she stood five centuries earlier.

The two countries may thus be compared to two fruit trees, planted side by side at the same time. The one, allowed to grow unchecked and unpruned, and run to waste, early reaching its full size, and bearing but indifferent fruit; the other, cut down while still young and vigorous, and grafted with a new and better stock, far longer in attaining maturity, but then a far more vigorous and healthy tree, and bearing far superior fruit.

Those who reject the Lydian origin of the Rasena, as a corollary are obliged to reject the traditional visits of Evander and Æneas to Italy. If, however, I am correct in what I have assumed of the Asiatic origin of the principal families of both countries, and of the intimate connexion that existed between them, nothing can be more probable than that Evander should have sought refuge there; and, without attempting to prove it, it must, at least, be admitted that it is equally probable that the expatriated Trojans should seek a settlement in that country, where, a century before, a colony of Lydians similarly situated had found a home, as they belonged to a people whose country bordered on theirs, and who probably spoke, if not the same, at least a similar language, and whose institutions and religion must, at least, have very much resembled those of their lost Ilium. Where else, indeed, could they seek refuge from their cruel

* We have Hercules also in India. See "Illustrations of Indian Architecture," p. 4; and Tod's "Rajasthan," *passim*.

enemies, or where hope for so hospitable a reception, as among the cognate Rasena?

Before proceeding to speak of the arts of this people, there is one point in their institutions to which I must allude, as it does not appear to have attracted that attention from the learned which it deserves, though it exercised the greatest influence on the constitution of Greece and Rome. The point is, the federal union of twelve cities into one state, none of which possessed an absolute superiority over the other, and whose affairs were regulated by deputies from each city, and not by a king or any hereditary officer.

This institution existed in Attica till the reforms of Theseus; in Achaia, till the return of the Heraclidæ; and probably in other states of Greece. It was taken back by the Ionians to Asia Minor, where the twelve cities founded by them formed a union till a late period. It was the earliest and the most essential political institution of the Etruscans, from the first dawn of tradition, and existed till their downfall, not only in the original twelve cities but in their colonies, all of which were founded on this principle.

That this institution is essentially and exclusively Pelasgic, and derives its origin from Asia, I think can scarcely be doubted, but, except in the twelve tribes of Israel, I do not know where to look for any trace of it in the East,* where monarchy seems to be an almost inherent principle of government; and certainly it did not come from Egypt, though in later ages there the twelve nomes, the dodecarchy, and the labyrinth, seem, at first sight, to suggest something of the sort: but the absence of a king paramount in Greece and Etruria at once points to a marked difference between the institutions of Egypt, or, indeed, of any Indo-Germanic country, and those of any one inhabited by these Pelasgic races.

This federal union of cities appears to me of peculiar interest, whatever may be its origin, as it is the first form of republicanism that appears in the history of the world, and is the element which, infused into the constitution of the states of Greece, and afterwards of Rome, gave rise to that political freedom which was the parent

* I believe, however, that it exists among the Manchoos, and other Tartar tribes, to the present day.

of all their greatness ; though it does not seem to be suited either for great political power or for extension by conquest, but rather for the unobtrusive developement of the arts of peace and of social liberty. And it is perhaps in consequence of this, and because the Pelasgic races had no kings, and, consequently, no conquerors, that we lose sight of them so completely in the early stages of history, while the autocrats of Egypt and Assyria stand so prominently forward, and dazzle us even now by the extent of their conquests and the immensity of their ill-gotten booty, as well as by the gorgeous but blood-cemented monuments which this circumstance enabled them to leave behind them, and which have entirely eclipsed the peaceful labours of the less ambitious Pelasgi.

SECTION I.

ARCHITECTURE.

TEMPLES.

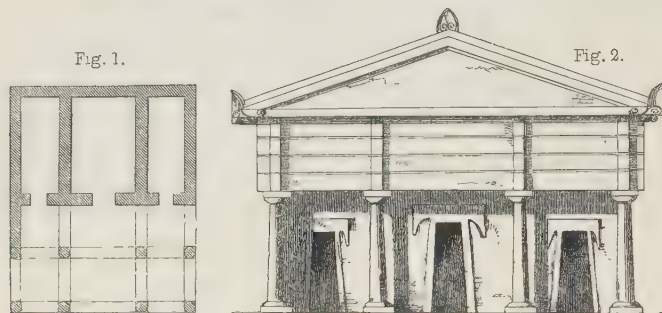
IF we take the whole breadth of Asia, from the Indus to the shores of the Ægean sea, there does not exist in that vast, and, at one time, highly-civilised tract, one single remain of an ancient native temple. There are remains of the palaces of Babylon, and Nineveh, and Persepolis, and tombs in thousands, both cut in the rock and structural: but for temples, we only know that a temple, or Pyramid of Belus, existed at Babylon, one dedicated to Hercules at Tyre, and a small temple at Jerusalem. Had they been a temple-building people, like the Egyptians or Dorian Greeks, it is impossible but that some remains must have survived to our time, or that some descriptions of these edifices would be found in the Greek or other authors; but such is not the case, and we are left to the conviction that they never existed. Under these circumstances, it would be in vain to look for any structures of this class among a people deriving their origin from these nations; and we consequently find among the early Greeks and the Etruscans, that if anything of the kind existed, it must have been so insignificant that no description and no remains of it could have come down to our time. In latter days it cannot be doubted that the Etruscans did possess some temples at Rome, but, if we may trust the description left us, they hardly deserve a place in a history of architecture.

In this instance we are, unfortunately, left to the tender mercies of Vitruvius, and, as usual, his text is little more than a puzzle to commentators, though his description of the plan of an Etruscan temple* is as clear as anything in his book, and if we could take it as a general *résumé* of the principles of the style, it might suffice: it is more than probable,

* Book II. chap. 7.

however, that he had in his eye some one temple at Rome, which he has described without alluding to any difference, either in plan or detail, that might exist in others, though it is impossible to believe they were all the same; and it is equally improbable that a wooden temple standing in his time could be of great antiquity: I, therefore, look upon it as the description of an Etruscan temple, erected in Rome by the descendants of that people, according to the ancient form and ordinance,—perhaps by their aruspices, but which may still have been much modified by the Roman architecture of the age. Still it is all we have, and its plan is interesting, as proving, first, that the Capitoline temple* was built on this plan, and because this form was evidently the parent idea of the most magnificent of Roman porticoes, that of the Pantheon. Though the plan, therefore, may be tolerably restored (woodcut 67,

No. 67.



Restoration of Etruscan Temple.

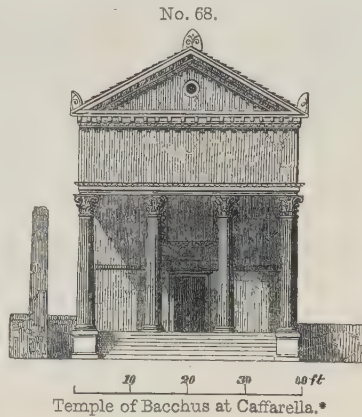
fig. 1), and also the order according to the dimensions given, still I would not accept that as true Etruscan architecture, but rather as the Roman Doric employed in an Etruscan building; for it appears so unlike what we know of the ornate style of the small buildings of eastern nations, and so inappropriate to the wooden superstructure it supported, that it is almost impossible to suppose that this is the style they brought with them from the East, and I would rather refer to the pillars at Mycenæ (woodcut 45)—we do not know what their capitals were—or to Persepolis (woodcuts 21, 22, and 23), for the original pillar of this race.

The difficult part, however, in this description of Vitruvius is to ascertain the height of the temple; the passage may be translated as meaning once and a third the breadth over the extreme projections of

* Dionysius, iv. 61.

the mutules, and so, I believe, all would translate it, but for the difficulty of filling up such a length as would then exist between the capitals of the pillars and the summit.

In such a case as this, one analogous example, however imperfect, would do more to throw light on the subject than all the ingenuity of commentators; but no temple exists that has any pretensions to Etruscan origin. There is, however, in the neighbourhood of Rome, one (woodcut 68) which, I think, may serve to explain, at least, part of the difficulty; and it stands close to the fountain of Egeria, a spot so eminently Etruscan, that there, rather than any other place, should we look for memorials of that people down to the latest date. The so-called Temple of Bacchus, which stands there, is of the Corinthian order, and was built, probably, during the reign of the Antonines, or, at all events, during the time of the emperors. Still, it is so unlike every other temple in one of its most important peculiarities—the enormous height of its frieze—that we must look elsewhere for an explanation of this peculiarity. This, I believe, can be found only in the description of Vitruvius; he clearly indicates that several wooden architraves were placed one above the other to form the entablature, and were framed into one another, and as they could not well be less in height than breadth, the frieze must have been excessive. Here we have a similar frieze in brickwork, and I do not think there is anything more anomalous in the Corinthian order here employed, than in the Doric one in the example Vitruvius describes; and, besides, this temple is exactly of the proportions he describes, for its height is precisely once and a third its width, measured over the mutules. With these hints, and such as can be gleaned from the rock-cut edifices of Lycia, I should feel inclined to restore the Etruscan temples in a manner very different from those who have before attempted it, and the annexed elevation (woodcut 67, fig. 2) is, probably, more near the truth than they are: though, in this instance, I have made the height one-third less than the width, that I



* From Agincourt's "Histoire de l'Art," plate xx.

might place both theories before the reader, and that he may choose whichever he thinks most in accordance with the text. Perhaps this one I have adopted will best explain another passage in our author, where he talks of the *ædium species barycephalæ humiles et latæ* of the Etruscans. At the same time, I should be sorry to rely on anything in Vitruvius, were any argument of importance to be grounded upon it. In the present instance, what is important to the history of art and of the Etruscans, is to prove either that they had no temples, properly so called, or that those they had were so insignificant, compared with their other works, as scarcely to deserve mention.*

To persons unaccustomed to live in hot climates this immense mass of woodwork over the pillars will, no doubt, appear a very unsightly and useless appendage; but in the East the object that was thus attained is always aimed at, though by different means. In India, for instance, a wooden screen is always placed between the columns of a portico, or verandah, reaching down to within six or seven feet from the ground, so as to protect the interior from the sun and rain, without bringing the roof too low, which, if the Grecian orders were used without this addition, would be the case; or this is effected by a low arcade, with a heavy wall over it, which answers the same purpose, but not so well, when no wood is used. The Etruscans gained the same end by a wooden screen *upon*, and not *between*, the pillars; while, at the same time, the space left between the beams admitted air, and a portion of light.

A little further on there is a passage in the description of Vitruvius,† which has been strangely overlooked by restorers, where in speaking of temples erected in the Tuscan style, but with Corinthian or Ionic pillars (like the one at Egeria, above described), he mentions that sometimes the wall that extended from the cella to the antæ was omitted, and a pillar introduced instead; thus shewing that the temple he had before been describing was a cell, distyle in antis, with a tetrastyle portico in front, as I have drawn it, on one side.

Between these two passages,—and, consequently, when he was still speaking of Etruscan temples,—Vitruvius describes the round temples,

* The Fanum Voltumnæ, in which the states of Etruria met, seems to have been more a stoa, like the Lesche of Delphi, than a temple, properly so called; but we

have no detailed description of it from which we could form any correct opinion on the subject.

† Book II. chap. 7.

with or without cells ; thus adding his negative testimony, such as it is, to the abundance that exists of other evidence of their Asiatic origin. Egyptian they certainly were not : the Doric Greeks always abhorred circular forms for temples ; in Italy we find them always dedicated to Vesta or Cybele, whose worship was indigenous in Phrygia or Lydia, and whose introduction to Italy was popularly ascribed to Æneas, though more probably brought by the Rasena themselves. From Asia Minor, however, it certainly came, and in the sacred fire that burned on her altars we find the earliest trace—perhaps the only one ever brought to Europe, of that fire-worship which became afterwards so famous, and which still exists in the East.

Unfortunately, all the round temples of the Etruscans, as well as all their square ones, have perished, and we are left for our knowledge of them to the copies of the Romans, and the uncritical descriptions of Vitruvius ; and as all the Roman circular temples are of the Corinthian order, and Vitruvius gives ten diameters to the height of the columns, all commentators have agreed that they must have been of that order. They existed, however, I believe, long before that order was invented, and a far more correct type for restoration would be found in the pillars of Persepolis than in the orders of the Romans.

As, however, the principal interest of both these forms of temples consists in the influence they had on the architecture of Rome, I will not insist more on them here, where no original examples exist, but will return to the subject in speaking of Rome.

SECTION II.

TOMBS.

I HAVE above pointed out that none of the Indo-Germanic races were tomb-builders, or cared for the bodies of their dead, while the Pelasgic races were distinguished in antiquity by the very antithesis of these characteristics. None of the latter, as I said before, were temple-builders, and their only monuments are tombs. I am perfectly aware of some objections that could easily be quoted against this theory, but they will, I think, be found on examination to have arisen where the one race has influenced the other so far as to cause, at least, a partial adoption of their customs. Still the general fact is, I believe, indubitable; and when speaking of the Pelasgic races we shall find that it is their tombs alone that are sufficiently important to form a separate subject of study, or that are worth investigating, either for their splendour or originality, and that it was from them that the Romans borrowed all their ideas on the subject.

Though much has lately been done to elucidate the subject of Etruscan antiquities, and something is now doing, still much remains to be done before any satisfactory conclusion can be arrived at on the subject. Almost all the explorations have been isolated, or are collations from information obtained without any definite object in view. What is now wanted is that some enlightened antiquary would (having obtained a sufficient primary knowledge of the subject to know what the difficulties and what the points of interest are) visit the monuments themselves—would compare and measure the mouldings and details, drawing them with instruments of some sort, and writing notes on the spot, so as to trust as little as possible to either the ear or eye; and then arranging this knowledge with the sculpture and objects found in the tombs, it would be easy to obtain a chronometric scale, by which to arrange every monument that came before him, and once having obtained a successive series, it only requires an initial and final date; neither of which would, in this instance, be difficult, and Etruscan history and art would no longer be the puzzle they are. The drawings now before the public

are far too imperfect to enable the student in his closet to attempt this, and while he does not know which came first, and which succeeded, it is almost impossible to arrive at any satisfactory knowledge regarding them. I confess, so imperfect do I feel my knowledge of this interesting subject to be, that it is with extreme diffidence I write what I may have to say on the subject.

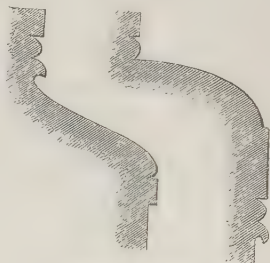
It is difficult even to arrange the monuments into classes without reference to their dates, but there is one division which may be hazarded without much risk: first, into cave or rock-cut tombs; secondly, into structural tumuli; and, lastly, into tumuli raised over rock-cut sepulchres; the last being the most common class in the tufaceous districts of Etruria proper.

Without, however, hazarding an opinion as to which is the most ancient, the first we know did exist in Egypt as early as the date of the Pyramids, in whose neighbourhood they are found; and in Syria they exist in thousands, and in an almost unbroken series, from the cave of Machpelah, in which Abraham was buried, down to the Roman tombs of Petra and Xanthus. In Etruria they are found in immense numbers, more especially at Castel d'Asso and Tarquinium, where they are cut in the scarp of the rock, and ranged like dwellings in streets; and, indeed, there is every reason to suppose that the dwellings of the dead were meant to imitate those of the living: for the Etruscans seem, like the Moguls and Tartar tribes of the present day, to have attached no gloomy ideas to death, but to have provided the dead in his tomb with all the appliances and luxuries of life, as if his second state would be exactly like the first, and that the dead were again destined to enjoy what they had enjoyed before. Still the argument must not be carried too far,—the tumular tombs certainly did not represent dwellings, and as they were contemporary with those cut in the rock, the same idea was probably meant to be expressed in both, and it would be fallacious to draw conclusions from the appearance of the one without taking into account that of the other.

As cave tombs were so early used in Egypt and the East, there is nothing to militate against the idea that some of these excavations may be coeval, or nearly so, with the arrival of the Rasena in Italy, and some of them, with debased Doric and Ionic ornaments, may safely be brought down to the time of the Roman emperors; and thus there are, perhaps, no monuments in Europe that afford so extensive a range to

research, or which would lead to more curious or important discoveries. From the drawings we have, all that can well be ascertained is that most of them at least belong to a period prior to any influence being exercised by Grecian art in Italy; for their mouldings—such, for instance, as the two shewn in the annexed woodcut (No. 69), from two steles at Vulci,—and their ornaments, are of a class so totally distinct from that art, that they point either to an idea borrowed elsewhere or to a native invention.

No. 69.



Mouldings from Vulci.*

Sometimes, as in the annexed illustration from the tombs at Castel d'Asso (woodcut 70), the rock-cut tomb is exca-

No. 70.



Tombs at Castel d'Asso.†

vated all round, and stands free like a structural building; when this is the case, I believe it was always intended it should be surmounted by a structural pyramid or stele, but as these have in all instances been removed, or are ruined from time, it is not easy to say what their form was: but it would be interesting if the remains of some one could be found, as the buildings of the Pelasgi had

a tendency to run to height more than those of any other ancient people we are acquainted with, and so exceptional a form is not only very difficult to restore, but its singularity is generally very instructive in itself, ethnologically, if not artistically.

TUMULI.

By far the most interesting monuments of the Pelasgi are the tumuli which they raised over the remains of their illustrious dead, which are

* From the plate of the "Istituto di Correspondenza Archæologica," vol. ii. p. 20.

† From same work, vol. i. p. 60.

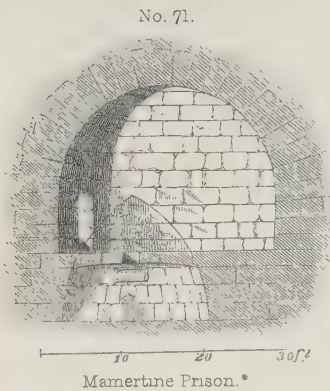
still found scattered over the whole breadth of the old world, from Ireland to Japan, and which wherever they are found indicate the previous existence of this singular race. Whether the idea of these mounds was taken from that of the pyramid, or, which is more probable, whether the pyramid is a reproduction, in a square form, of the idea of the tumulus, are questions I must leave others to decide, for I scarce think it worth while arguing it till, at least, it shall be decided there is really a connexion between the two, which at present is by no means clear.

All tumuli had apparently a chamber, more or less magnificent, in their centres; for with the Pelasgi the dead were neither embalmed nor enclosed in coffins like those of the Egyptians, but were dressed in their most splendid wearing apparel, and laid out as if to sleep in an apartment, probably like the one they occupied in life, and large enough, at all events, to admit of their being surrounded by their most precious vessels and furniture, and all the requisites it might be supposed they could want in the new land to which they were journeying, and in which they seem to have thought they should awaken in the forms and with the wants inherent to their present sublunary existence.

In its primitive form, the tumulus is merely a cone of earth, as steep as the nature of the material would admit of its being made, and, in Etruria at least, it was almost always surrounded by a basement of masonry. It is not clear whether or not this was the case with the tombs of the Atridæ at Mycenæ, or with those of Achilles, Patroclus, Ajax, and other heroes, which the Pelasgic Greeks erected on the plains of Troy: but we know, from descriptions, of that of Epytus in Arcadia, of Alyattes at Sardis, of those at Smyrna (woodcut 28) and elsewhere, that this was at least as usual as it was an obvious mode of finishing them; but it is so easily removed, and so convenient for the purposes of villagers, that its absence in other instances nowadays scarce proves anything: while, at the same time, it is so easily concealed by the gradual degradation of the earthen cone by rain, that, unless looked for, it is seldom visible at the present time even where it does exist.

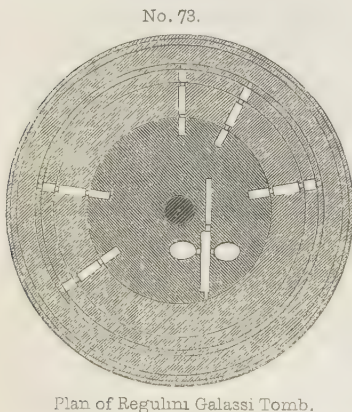
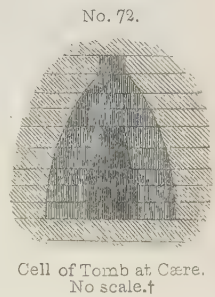
There are not, so far as I am aware, any chambers in any of the tombs of Etruria that can at all vie in magnificence with those of Mycenæ, far less with such a one as that at Orchomenos. The apartment

most like them in construction is the one known in Rome as the Mamertine



Prison (woodcut 71); the upper part, however, of the Pelasgic dome has been removed, and converted into the floor of a regular Roman-vaulted apartment: but, even when complete, it was not half the size of that of Mycenæ, nor was it, probably, ever a tomb, or in the centre of a mound. On the contrary, almost all the cells in the tombs of Etruria are rectangular, like the one at Tantalais (woodcut 28), and like it roofed by a horizontal pointed arch, but often combined with some peculiarities of construction not common elsewhere, as shewn in the annexed woodcut, where the form of the doorway separating the two cells ends squarely at the top, instead of running to a point, as is usual in Greece, and where, also, the summit of the arch of the cell is formed into a square recess, apparently for the purpose—in domestic edifices, at least—of serving as a cupboard to hang vases in.

Though not remarkable for its size, one of the most perfect tombs found in Etruria is one discovered not long ago at Cære,



or Cervetri, by the Arciprete Regulini and General Galassi, hence called by their names, and illustrated in the three following woodcuts. When opened, it was perfectly intact, and contained all its treasures of dress, jewels, ancient vases, and furniture, which now form the principal ornaments of the Gregorian museum at Rome. It owed its singular preservation apparently to the fact that, after the original tumulus was finished, it was enclosed and hermetically sealed in a second and larger one, † containing the graves of inferior persons, which

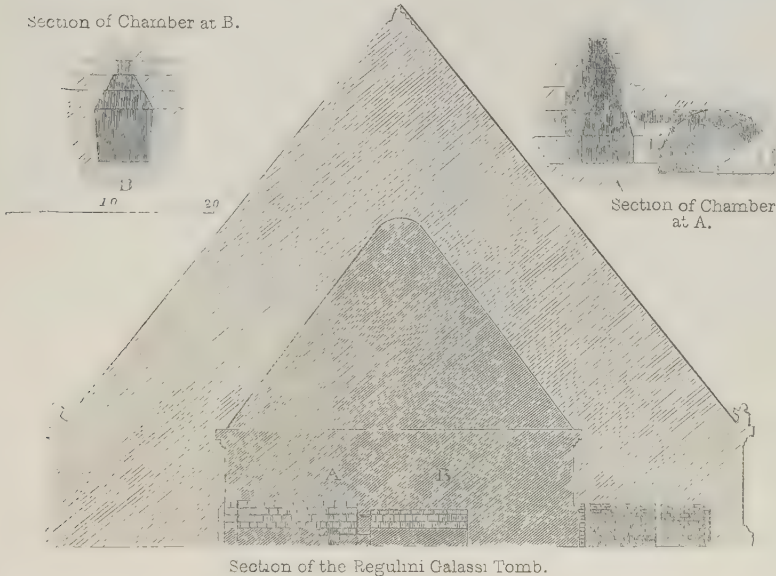
* From Gell's "Topography of Rome and its Vicinity."

† From Canina's "Antica Etruria," plate liii.

‡ This peculiarity is interesting, not only on its own account, but from its bearing on the Nubian pyramids (*vide ante*) and the Buddhist topes, of which more hereafter.

so completely hid the entrance to the original sepulchre as to baffle the ingenuity of earlier spoilers. In the annexed woodcuts (73 and 74), the

No. 74.



parts shaded darker than the rest represent the older and original tumulus, containing only the original tomb, in which all the treasures were found; it was placed out of the centre, apparently to make way for a stele, which formed the nucleus of the centre, and, probably, rose to some height above the top of the earth-work. The plan and section are drawn to the usual scale,* but the sections of the principal cell through A and B are to a larger one, so as to make the peculiarities of their construction more apparent, as its irregularities are far from being singular, and they shew a curious mixture of the Egyptian and Pelasgic arch.

The woodcut 75,† on the next page, shews the appearance of the outer part of the cell, with the treasures arranged as originally found, and explains, among other things, the cause of the singular form given to the apex of the roof above alluded to.

* As a scale for ascertaining the size, I may mention that the tumulus covers almost exactly the same extent of ground as the circular part of the Pantheon at Rome.

† These three woodcuts are taken from Canina's work quoted above, but, I am sorry

to say, like most of his works, are not remarkable for correctness. The plan I have no means of correcting, and have reduced it as I found it: the sections have, however, enabled me to correct the view.

The age of this tomb has not been satisfactorily ascertained, but from

No. 75.



View in principal Chamber of Regolini
Galassi Tomb.

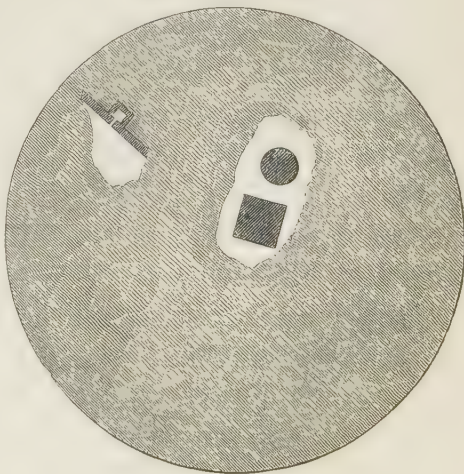
the nature of the treasures, and the essentially Asiatic character of all the ornaments on them, they must have been executed by people who had not long left their native shores. Probably its date is not far distant from that of the fall of Troy, but till we know more of the Assyrian sculpture, to which alone we can look for any explanatory text, it is not easy to judge correctly of such a monument as this.

There were many tumuli in Etruria larger than this one, and had they been preserved intact they would, probably, have yielded even greater treasures to the explorer; but their importance has already attracted the

spoiler, and almost all our other discoveries have been made in tombs that, from their insignificance, have escaped observation.

Among those of a larger scale, one of the most famous is the so-called Cocumella at Vulci, which is remarkable as retaining the remains of two of its steles, as shewn in the annexed woodcuts (76 and 77): one of them is square, the other round, but neither of them is placed in the centre, or symmetrically, so that it is difficult to guess from their position whether there were originally five, or only these two; and I am not aware that any excavations have been made to ascertain this most interesting point. From the elevation it will be seen that their present height is only about 50 feet above the ground, but originally was, probably, more than twice that, otherwise they would not have

No. 76.



Plan of Cocumella.

appeared above the earth-work, which, if sloped at the usual angle of 45° to the horizon, must have risen to about 115 feet above the basement.

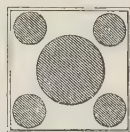
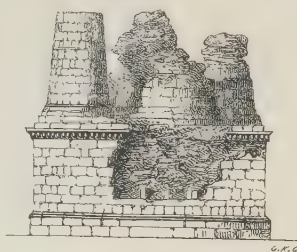
No. 77.



Elevation of the Cocumella, Vulci. Usual scale.*

Though not to be compared in size with these two last examples, there is a very interesting little tomb near the gate of Albano, commonly called the Tomb of Aruns, the son of Porsenna, or by others, of the Horatii and Curiatii; but, if the mouldings are correctly drawn in the plate† from which the annexed woodcut (78) is taken, I fear it has no title to so ancient a date as either of these names would indicate: it is, however, either an Etruscan tomb, or, at least, one built on a purely Etruscan model, and, as a five-stele tomb, is interesting, as being the only one retaining that peculiarity which distinguished the celebrated tomb of Alyattes at Sardis, and the still more famous one of Porsenna at Clusium.

No. 78.



Tomb of Aruns.

I am utterly unable to offer even a plausible conjecture as to the origin of the five-steled tombs, or to explain the idea that was meant to be expressed by them. They do not appear to have been very ancient,—at least, those of Alyattes and Porsenna, and that of Aruns, are all very modern, comparatively speaking, and were erected at the time when both Lydia and Etruria were verging on decay; and we have no trace anywhere of earlier examples, but, as in everything else that is Etruscan, we must look to Assyria for an explanation,—if she will not answer, as I fear, it must remain a mystery.

I do not think it would be easy to write a more amusing chapter

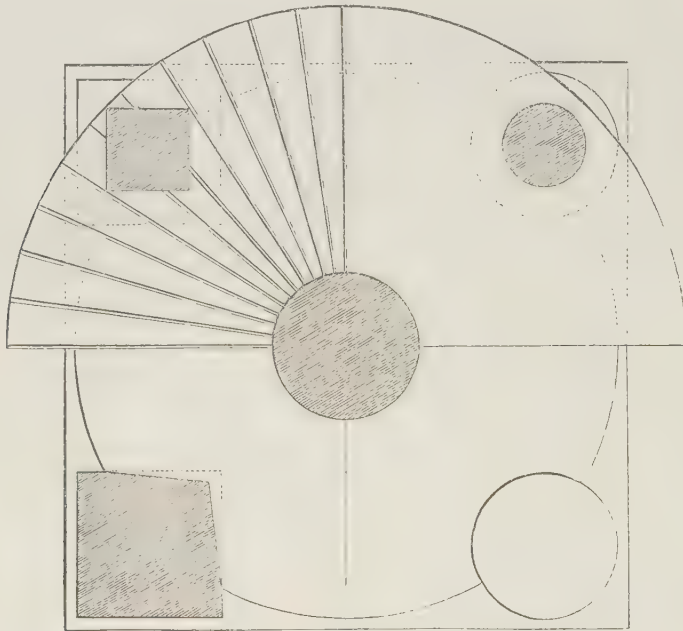
* From the "Istituto di Correspon-
denza Archæologica," vol. i. plate xli.

† From the same work, vol. ii. plate
xxxix.

on modern architecture—or, at the same time, a more bitter satire—than by taking the modern restorations of the tomb of Porsenna, and placing them in juxtaposition in all their ugliness and impracticability, and if elucidated by a few excerpts from the restorations of the temple of Solomon and the mausoleum at Halicarnassus, it might be made more amusing than any novel that has appeared for some time. The description of Varro, as quoted by Pliny, is extraordinary enough in itself, and quite sufficiently wonderful to have excited Pliny's incredulity,* without the attribute of impossibility being added to it, as is done by most modern restorers.

The annexed woodcuts will explain what I conceive the form of this

No. 79.



Tomb of Porsenna. Plan, usual scale.

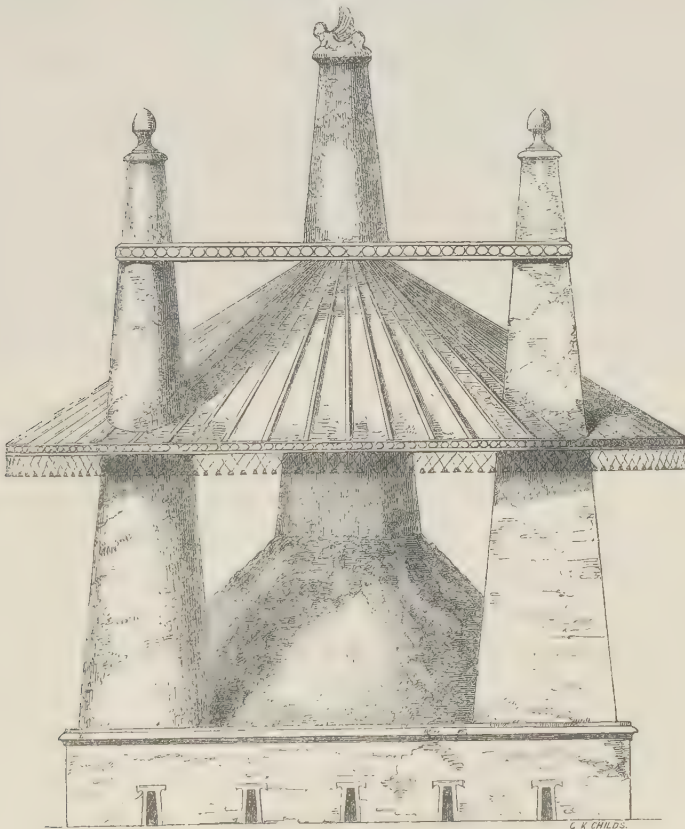
Pliny's words (book xxxvi. chap. 13) are as follows:—*Sepultus est (Porsena), inquit (Varro), sub urbe Clusio: in quo loco monumentum reliquit lapide quadrato: singula latera pedum lata tricennum, alta quinquagenum: inque basi quadrata intus labyrinthum inextricabilem: quo si quis improperet sine glomere lini exitum invenire nequeat. Supra id quadratum pyramides stant quinque, quatuor in angulis in medio una, in imo latæ pedum septuagenum quinum, altæ centum quinquagenum ita fastigatæ ut in summo orbis æneus et petasus unus omni-*

bus sit impositus; ex quo pendeant excepta catenis tintinnabula quæ vento agitata longe sonitus referunt, ut olim Dodonæ factum. Supra quem orbem quatuor pyramides insuper singulæ extant altæ pedum centenum. Supra quas uno solo quinque pyramides, quarum altitudinem Varro pudit adjicere. Fabulæ Hetruscæ tradunt eandem fuisse, quam totius operis; adeo vesana dementia quæsisse gloriam impendio nulli profuturo. Præterea fatigasse regni vires, ut tamen laus major artificis esset.

singular monument to have been, and though it may look strange, it is restored in strict accordance with every syllable of Varro's description, and so far from being impossible, it could easily be erected to-morrow. The only liberty I have taken has been inserting the earthen tumulus around the central stele, but its introduction does not in the least affect the correctness of the restoration, and it might be omitted if thought desirable.

Could I find anything in the text to justify it, I should have preferred reducing the petasus, so as to bring it within the four external piers, instead of projecting beyond them; and so I had at first restored it, but the annexed is, I am convinced, more in accordance with the text.*

No. 80.



Tomb of Porsenna. Elevation, half usual scale.

The great mistake restorers have made has been in assuming that

* On one side I have represented the angular towers as square, on the other as circular; the reader may choose which he thinks most probable. As the base was square, the towers may have been so also.

each of the pyramids came to a point under the petasus, which, in the first place, is impossible, and, at the same time, it is quite plain that what is meant by the text is that they were brought to a point by the petasus. It must, in the next place, be observed that the word used is neither orbis nor tholus, but petasus or cap; and thus it may have been a structure of wood, or other light material, and covered probably by copper, and finished at the outer edge by a bronze ring, *orbis aeneus*. According to this arrangement, there could only be four pyramids on the second story, and then the five reappear from one flat or floor (*uno solo*). What this solum was is not quite so apparent, but it probably was meant more as a framing to stay and support the tall spires than anything else, and as such I have represented it. The height above this, Varro does not mention, either because of the difficulty of ascertaining it, or because these towers were of different heights, as I have represented them, and he did not think it necessary to complicate his description. Still, I am not surprised that Pliny should begin and finish his quotation with a sneer at Varro's credibility; for the height attained by this structure, which could not have been less than 400 and probably was 450 feet, was so extraordinary in ancient times, and so abhorrent from the principles of Grecian architecture, which the Romans copied, or rather believed they were copying, that he might well be surprised at such an Orientalism as this.

I have before remarked, that the Greeks never affected height, and that their buildings were generally much less in height than in breadth; and the same is true with regard to the Egyptians, but does not appear to have been the case in the East. Here, however, the destruction of native monuments leaves us without the means of coming to any very satisfactory conclusion, but I think we have knowledge enough to justify the assertion that this was the spirit of their art; and in Syria we have several sepulchral towers, Roman, indeed, in age and detail, but evidently Syrian* in origin, and not unlike these pyramids of Porsenna. They were common in India among the Buddhists, and were one of the first forms adopted by the Mahometans, long before spires appeared in the West. Still, the positive proof of this is so difficult, that I will not

* The towers of Solomon's Temple | would serve as illustrations, if Porsenna's
and the screen with its bells (pome- | tomb were not more certain than they
granates, as they are called in the Vulgate) | are.

pursue the subject further at present, though I know of scarcely one monument in antiquity which, had we more certainty about it, I should like more to dilate upon: for I cannot help considering the Lydian tumuli, with their stele, or steles, and their petasus, as the originals of the Buddhist topes, with their tees and the chattahs, or umbrellas, which adorn them. And even the bells which hung round the edge of the petasus are of interest to the philosophical antiquary, for the expression of Varro in speaking of them, *ut olim Dodonæ*, points to a connexion between the two places and two religions that existed in the mind of the author when he used the expression; and we know that the Buddhist topes in India were so decorated. And even now, at the present day, in Burmah, China, and all Buddhist countries, the petasus that crowns the summit of every tope is hung round with these little bells, which any traveller in the East may hear now, as of old. Indeed, I do not know of any sentence in any ancient author which conveys to my mind so much ethnography as these few words of Varro—*ut olim Dodonæ factum*, or which have oftener risen in my mind and been so full of pregnant meaning.

A petasus hung round with bells, and crowning a tumulus, is too singular a form to have been accidentally reproduced by two different people; and when we find this form extending from Clusium to Pekin, and from the days of Dodona's glory to the present hour, we cannot be far wrong in assuming the existence of the same race extending from the confines of Europe to those of Asia. My own belief is, that no evening breeze has wandered over the face of the earth for the last four thousand years without awakening their responses, and, by their tinkling, telling of the existence of the descendants of the oldest people and the oldest faith, whose traces yet exist on the face of the globe.

There is only one other point connected with this most interesting tomb of Porsenna that seems to require remark, which is the labyrinth in its base, which, like all the others mentioned by the ancients, is more difficult to comprehend than it was for the wanderer to find his way through its intricacies,—without, at least, a clue, which, unfortunately, has not yet been afforded us; lately, however, a sepulchre has been opened at Chiusi (Clusium,) which may throw some light on the subject. The annexed woodcut, taken from the drawings of its first explorer, M. Gruner, which he kindly lent me for the purpose, will explain its singular form;

since they were made, more chambers and passages have been discovered,*



but, like these, all unfinished and without anything that could explain their use. They form the lowest story of a tumulus which possesses sepulchral chambers at three different heights, and, if extended, would certainly come as near the usual idea of a labyrinth as anything I know. (*Vide* page 278.)

I have above pointed out the connexion of the labyrinth with the tomb in the structures of Egypt and Assyria; the same exists here, but what the idea meant to be expressed was, is

as mysterious in Etruria as elsewhere: perhaps, after all, it might only be concealment, to hide by bewildering what no mass could protect from the hand of the spoiler, as probably had been discovered even at that early time.

Volumes might be written regarding these tombs of the Etrurians, without exhausting the subject or saying half that was interesting regarding them, in so far as ethnology or history are concerned; but as works of art they possess so little that can be called art, or which even pretends to or was meant to be an artistic mode of utterance, or aspiration after the beautiful, that it would be out of place to follow the subject further in a treatise like the present, though the subject is yet far from being exhausted, and requires a much more careful elaboration than has yet been bestowed upon it, more especially to the light that might from their tombs be thrown on the domestic architecture and habits of the people, which, after their ethnography, is the most interesting peculiarity we can attain to. I fear, however, they will never tend to our extracting from them any new ideas of grand or monumental art, which seems to have been entirely foreign

* Micali, "Monumenti inediti," p. 365.

to the habits and tastes of this singular people; and, therefore, it would be singularly out of place, in a work having the aim of the present one, to debate on that which, though it may be infinitely interesting to the historian, can afford no instruction to those whose search is after the beautiful, and what may elevate and refine the arts of their own country.

At the same time, nevertheless, it is almost impossible to imagine any nation reaching even a partial degree of civilisation without having some one great form of national art, to which the energies of the people being directed, acquires with them an individuality and an expression entirely their own.

In Greece, the temple and the theatre, with their accompaniments, supplied the focus to which the Grecian mind bent all its energies, on which it developed all its power of poetry, and around which the Greeks spread the halo of their genius and of their sense of beauty; in Egypt the palace-temple supplied the object almost in the same manner. But in Etruria, as I explained before, there were no temples of sufficient importance to engage the national mind, either in their structures or accompaniments, and though their tombs were important, tombs never are and never can be truly national monuments. They always were and must be the offspring of individual vanity or of individual superstition, and no nation ever was remarkable for tombs when it was the custom to leave them either to successors or to national gratitude: on the contrary, in Egypt, in Etruria, and in India, all the mausolea that adorn these countries were erected by the great themselves during their lifetime, for their own final resting-place; and it is because we, and generally all the Indo-Germanic races, fearing the image of death, have shrunk from busying ourselves during our lifetime with our tombs, that we possess nothing of the sort worth alluding to. Still the expression of the individuals of a nation may, to a certain extent, be said to be the expression of the nation, but it cannot be the principal nor the only one; and if we look attentively at the technology of the Etrurians, we shall find that it was neither in temples nor tombs that their principal developement lay, but in the more useful arts, which the Greeks almost wholly neglected. Their roads and bridges, even now, remain monuments of persevering industry and scientific skill; their cloacæ and tunnels are so extraordinary that, after twenty-five centuries, they remain unsurpassed even by the works of the gigantic

Romans; and their city walls and fortresses shew how anxiously the common safety was provided for. They drained marshes and cultivated almost barren plains, and must have done more than we can now comprehend to bring Italy from a savage state to that degree of civilisation which the fortunate organisation of the Romans enabled them to profit by, more than those who laboured for its accomplishment. *At sic vos non vobis!*

Commerce, too, with all its accompanying arts, was assiduously cultivated by them; and, in short, they present us with almost the only example which antiquity affords us of an agricultural and commercial people, totally devoid of all vain-glorious pretensions, and seeking neither to gratify ambition by conquest nor to flatter national vanity by splendid but useless buildings, but cultivating only those arts of peace which advance by slower but far surer steps the happiness and civilisation of mankind. Unfortunately, however, for the antiquarian, the works of agriculture and of commerce do not leave behind them such striking or such legible records as those which are written in blood and suffering by the ambition of nations or the vanity of kings; and modest Etruria has been overwhelmed and her glory overshadowed by the lawless ambition and myriad crimes of all imperial Rome.

Whenever a nation are really in earnest in any pursuit they never hesitate to inquire whether such a thing has been done before—or, as we would phrase it, whether it is correct or not—but eagerly seize on every idea or every invention that may aid them in the accomplishment of their object; and it was thus with the Etrurians in their utilitarian pursuits, they found the arch admirably adapted to enable them to perfect their roads by bridging the streams, and to complete their tunnels and form their drains, and they used it with a boldness and originality that almost entitle them to the honour of being called its inventors, which some authors have ascribed to them. We, however, know that it was used during the reign of the eighteenth dynasty in Egypt (in brick, at least), and it is by no means improbable that it was communicated by them to the Lydians during their long occupation of that country, and from them found its way to Italy; but it is not even proved that the Egyptians were the inventors, as it was early used on the banks of the Euphrates, where they either may have found or brought it, or, indeed, it may belong to an earlier race than either: but both the Egyptians and Greeks rejected it as an ornamental feature when it

certainly was not necessary, and had it not been for the utilitarian spirit of the Rasena, it might have lain dormant much longer, and not even to the present day been used in ornamental architecture.

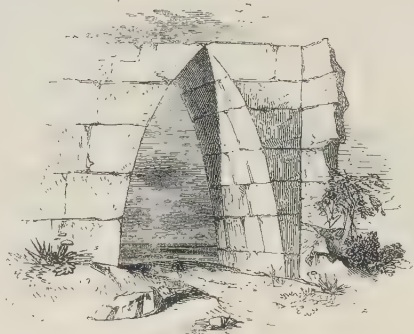
As in Greece, the Pelasgic Etruscans, however, used the horizontal arch in all its forms, either anterior to the employment of the keyed one or at the same time, as though they had an idea that it was better suited to their purposes from the absence of all thrust. There is no form of it that is not found in their tombs, from that of the inverted stairs of the pyramid-building Egyptians to the sloping jambs of the pure Pelasgi: and I need hardly add that all the doorways in all Etruscan tombs, with scarcely an exception, possess this characteristic form. They used also the pointed form of arch as shewn above (woodcut 72), but more especially in their city gateways, as in the annexed example from Arpino* (woodcut 82), which is even a finer one than that of Thoricus, quoted above (woodcut 41). It certainly is the most pleasing, as it is the natural form for a horizontal arch, and, except the difficulty of hanging doors to it, is the best that

No. 83.



Aqueduct, Tusculum.

No. 82.



Gate of Arpino.

perhaps, under the circumstances, could be adopted.

Another modification of this is found in an aqueduct at Tusculum, where, instead of the horizontal courses being carried to the top, an Egyptian arch of two stones is used to complete it; which certainly is an improvement, and carries this principle to as great a degree of perfection as it is perhaps capable of:

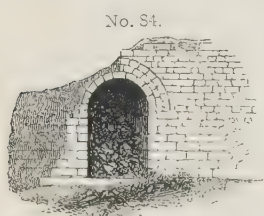
for, arranged as the stones are in woodcut 83,† the arch is of great and equal strength throughout, and there is no lateral thrust to endanger its

* From Isabelle. "Edifices Circulaires," plate iii. *bis*.

† Idem, same plate, and Stewart's "Athens," vol. v.

stability. It could not be conveniently used for larger openings, but there are purposes for which it might be advantageously employed at the present day.

It is not easy to ascertain the date of the true arches used by the Etruscans in their city walls and bridges, though some of them appear to be very ancient, and, I believe, certainly anterior to the foundation of Rome: there seems, however, to be very little doubt that the Cloaca Maxima at Rome is a work of her early kings, while she was still an Etruscan city, and under the influence and guidance of that people. The Romans did nothing like it, or so great, from the time they threw off her yoke till the time of the emperors, and it may therefore be considered a purely Etruscan work; it was one eminently charac-

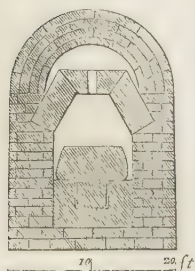


Cloaca Maxima.

teristic of the utilitarian habits of that people. The annexed section (to the usual scale*) will shew its dimensions, which, though considerable, scarcely merit the wonderment and applause that have been lavished on them. It is more remarkable for its durability than for its size, which shews that if it were not magnificent in conception it was, at least, technically perfect in execution.†

I shall have but little to say with regard to the painting or sculpture of the Etruscans, because, with regard to these arts, they were so immeasurably surpassed by the Greeks that their earlier productions lose half their interest with the artist; and their later ones, in which they copied the Grecian school, are only interesting as being among the few examples we possess to enable us to judge of the state of those arts

No. 84 bis.



Section of Campbell's Tomb, Gizeh.

* From Piranesi's "Magnificenza Romana," plate iii.

† The annexed example (84 bis) is interesting as a means of comparison with the above; it is taken from a tomb near the Pyramids of Gizeh, discovered by Col. Campbell, and called by his

name. It is composed, first, of an arch of three stones, which, consequently, shews an advance on the true pyramidal arch of two stones, such as woodcut 43, and the upper part of woodcut 83, and above this is a true semicircular arch, of four rims. The tomb is that of a royal scribe, and erected during the reign of Psammetichus, B.C. 670 to 617, and, consequently, must have been nearly contemporary with the three last examples.

in Greece; while, at the same time, they have not been sufficiently elaborated to enable the historian to deduce any correct conclusion from them, or to assist us in filling up the gaps that exist in the history of art at this period. Still there are some points of interest to which I must allude, though I shall do it as briefly as possible.

The art through which the Etruscans first became known to us, and which first excited an interest in Europe in the study of their antiquities, was the art of making and painting fictile vases. These, when first discovered, were universally called Etruscan vases. It has now become a fashion to call them all Greek vases, though with quite as little justice as in the former instance, for they certainly were made in both countries; and, looking at their respective histories, I should feel inclined to believe that they were manufactured in Etruria before they were in Greece. But in this, as in almost every other instance, we must refer to Asia for the invention, or, at least, for the earliest examples.

In the tribute brought by the Roteno and Kufa to King Thothes (*vide ante*), we see what I have little doubt were the originals of these beautiful works of art. These, it is true, were mostly of gold, but they came from a people inhabiting Mount Tmolus and the banks of the golden-sanded Pactolus; and though the tribute might be composed entirely of those precious metals, still it is impossible to conceive that a people capable of producing such exquisite forms would confine their efforts only to that expensive material: on the contrary, they must have had them of some more accessible manufacture, and that probably of clay: and this is more probable, because these two are the principal materials in which the native arts of the Etrurians were elaborated. The Rasena, of course, brought this art with them to Italy, and as the age of their highest civilisation was during the period that elapsed from the Dorian invasion till the revival of art in Greece, it is probable that in this they were before their Eastern neighbours. When, however, Greece put forth her strength, she surpassed Etruria in this as in every other art; and it was then, after the eightieth Olympiad, that I presume the Etruscans not only imported this ware from Greece, but employed their own furnaces in copying these productions: but even at this period, as well as at an earlier one, we find the different cities of Etruria each famous for one particular sort of vase, which would not be the case had they all been imported and not manufactured on the spot.

It does not at all appear to be a sufficient argument to say that all the subjects are borrowed from Grecian mythology. It is Grecian, because we have learnt it from Greek books; but, as I explained before, the heroic mythology of both nations was probably identical. Both got their gods from the same source (Egypt), and through the same crucible of Asiatic civilisation. The rites of Bacchus belonged equally to both, and Hercules, whose labours form by far the most common subject, was fully as much a Lydian and Italian hero as a Grecian one; considering how nearly the two nations were allied in their origin, this similarity may strike but should not astonish us.

In their sculpture, as in their vases, the two materials principally employed by the Etruscans were clay and the more precious metals. Marble—a material the use of which had more influence on the arts of Greece than any other external circumstance—they seem never to have used till they ceased to be an original nation; on the contrary, portraits, and little baked figures of the same clay as formed their vases, seem to have been their principal efforts in this direction, and where more costly objects were sought, these were repeated in the more precious metals: not, however, on the grand scale in which the Greeks had, from the use of marble, learned to use bronze, but by hammering, carving, engraving, and inlaying metals in those arts which we should now assume as more the province of the jeweller than the sculptor, and which the ancients seem to have included under the name of “*Toreutic*,” they produced objects of great beauty and elegance, but none coming under the denomination of high art. Perhaps their best efforts in that direction were in animal sculpture, some specimens of which that have come down to our time being almost unmatched for vigorous comprehension and delineation of the natural characteristics of the animal, which are seized and expressed with a truth that is perfectly astonishing, considering the rudeness, and sometimes conventionality, of the art they display.

But though the Etruscans certainly cannot lay claim to great conception, or any pure or elevated style of art, still in the minuter elegancies of life they seem to have surpassed even the Greeks themselves. In ornaments, for instance, for the person,—such as chains, bracelets, rings, ear-rings, &c.—they reached an elegance that has never been surpassed to the present day; and we know that their candelabri, and works of that class, were prized at Athens in the days of her highest glory, and in beautifully-wrought and inlaid furniture of bronze and ivory, they

attained the greatest elegance and perfection. This is, perhaps, what we should expect from an industrious, commercial people situated as they were; and if our eyes were not dazzled by the arts of Greece and the greatness of Rome, we might assign a higher place to the Etruscans than has hitherto been awarded them: but between these giants of intellectual and brutal force, they must remain in the shade of their own unambitious obscurity.

For their painting we must go, as with the Greeks, to their vases, which offer little calling for any further remarks: their art, like that of the Greeks, is distinguished from that of the Egyptians by the absence of all conventionality. We see, in every instance, that the artist is striving to imitate nature as he saw her; all his figures, whether of gods, kings, or common people, are still men, and if imperfectly represented, it is not because he was aiming at anything else, but because he could not do better: he did the best he could, and was always striving after a more perfect imitation, and gradually, of course, he attained it, so that progress is a certain indication of age. But how far Etruscan art had advanced before it felt the influence of the Greek, and how that influence was exerted, are questions which I cannot enter on here; latterly they certainly became one—if not in perfection, at least in style—the Greek having superseded the native art, till both perished under Roman influence.

In painting, as in all the arts of Etruria, we can as distinctly trace the introduction of the alphabetic element as in those of Greece. In no instance do we find in that country a painting attempting to tell the whole story by its own imitative powers; on the contrary, we are always, as in Greece, referred to the tradition or the book of which the picture is merely the representation or the illustration. In their older pictures we sometimes find the name of the persons represented written under or over them, as a guide to indicate the legend from which the subject is taken, but never either a hieroglyphic or a complete legend.

Indeed, nothing can be more clearly and essentially antagonistic than all the arts of Etruria from those of Egypt; in no one essential respect, do they resemble one another, and scarcely even in a single form, either of architecture, or painting, or sculpture. On the other hand, they do resemble those of Assyria to an extent that is startling; and when the latter are more familiar to the public mind than they now are, it

is in them alone that we shall look for similarities in subjects which may be of use in throwing light on either of these classes of art. When they are both better understood, I feel convinced that there are few peculiarities connected with either which a comparison between the two will not serve to illustrate, even if it should fail completely to explain it.

Were we, also, to turn to Etruria for an explication of the Homeric poems, I feel convinced that we should find there far more that would illustrate the manners and customs of the Greeks of that day among the tombs and artistic utterances of this people in Italy, than we can ever glean from our knowledge of the Dorian races who superseded the Pelasgi in Greece. With the former people the relationship was close and intimate, with the latter it was distant: and though from their inhabiting the same country, the Hellenes could not fail to inherit much from their predecessors,—it was not an affinity so close and intimate as one of blood.

The great interest, however, in Etruscan antiquities will always arise from the means they afford us of explaining the history of Rome, and the light such knowledge throws, not only on the early history, but on the whole arts of her inhabitants, from the earliest period till her fall. Without a competent acquaintance with the arts of Etruria, those of Rome are inexplicable: for, though it is usual to refer everything we find there to Greece, that will not explain half their peculiarities. As an Indo-Germanic race, their arts tended naturally much more to a similarity with those of the Hellenes than to those of the Pelasgi; but the proximity of Rome to Etruria, and her having, in fact, risen from and been nursed in her bosom, had such influence over the usual affinities of race as to cause the foreign influence almost to predominate over the blood relationship.

CHAPTER V.

ROME.

INTRODUCTORY.

It was in one of her few moments of happy inspiration that Rome chose the she wolf for her emblem, and acknowledged for her foster-mother the most savage and untractable of the brute creation. It is, however, with no slight feeling of disgust that one turns from the contemplation of the pure and vigorous arts of Greece, or even from the unassuming efforts of the modest Etruscans, to chronicle their degradation before the vulgar ambition of the wolf-suckled Romans. Yet if Greece in her perfection offers us models on which we can dwell with pleasure, and from which we may learn by what paths art has hitherto been successfully cultivated, and, consequently, by what means the same end may be again attained, Rome, on the other hand, affords examples perhaps scarcely less useful of what we ought to avoid, and shews but too clearly how little wealth, learning, and the command of the world, can do for art, unless accompanied by that purity of mind and purpose, and those virtues from which alone true greatness can proceed.

Of these two modes of teaching, the latter is, perhaps, the easiest to understand, and, if properly used, the most effective. But as they have been taught in modern Europe, this, certainly, has not been the case in this instance. The whole object of modern education is to teach that Rome is the model of all that is great and heroic, the birthplace of freedom and of virtue. To doubt this, or to say one word against the majesty of Rome, is treason of the blackest hue, and sure to enlist against its author the feelings and sympathies of every educated man in Europe. For so far from Rome being held up to us as an example of what we ought to shun, the one lesson instilled into modern youth is that she alone of all the nations of the earth is worthy of admiration.

As soon as a boy can spell short words in his own language, he is sent to school to learn Latin, and from that hour till he leaves the university nothing is dinned into his ears but Roman virtue, Roman greatness, and Roman glory ; even their literature, which at best is but an indifferent copy of the Greek, is held up before his eyes as the richest and noblest the world has produced : the literature of his own country is carefully concealed from him ; and the Christian religion still more carefully kept in the background, lest it should interfere with his more important classical studies, though these are avowedly as useless as they would be prejudicial were it attempted to reduce them to practice : they are, however, only learned to be forgotten, and the worst effect with us is lost time and misdirected ingenuity. It was not, however, always so, and had the effects been less serious, there are few things in history that would be more ludicrous than the *naïf* astonishment expressed by the clergy of France, and their solemn protestation when, at the end of the last century, their pupils determined on putting into practice a few of the lessons which they had for the previous two centuries been so carefully inculcating through their universities and schools. Neither a hereditary monarchy nor Christianity formed any part of the institutions of Rome ; these, therefore, were first put aside, and a republic established, *more Romano* ; and having thus revived the form, they set to work to rehearse the domestic butcheries of Marius and Sylla with a zeal that is quite refreshing, till they discovered that in this respect their teaching had been false, and that true happiness did not reside in the practice of these republican virtues. They then tried an empire *à la César*, and at first with far more brilliant success than the previous act of the drama ; for then they deluged Europe with blood, destroyed, for the time, every nationality and every time-honoured institution, planted their eagles in every capital of Europe, and enriched their own with treasures of art they neither could create nor appreciate, and filled it with triumphal arches and columns, and all the pageant mummeries of a mimic Rome. Yet it would be unfair to France, even in her hour of delirium, to compare her to Rome : she was not so sunk as to persevere in such a course, and twenty years' experience seemed to prove to her how hollow the imitation was, even before revolted Europe was roused to arms to put down the nuisance of Roman virtues reduced to practice, though they still allow the theory to be taught in every university and school in Europe.

If there is one thing in which the common sense of the Saxon race has shewn itself more than usually pre-eminent, it is the contempt with which they treat their education. Neither in the senate, nor at the bar, nor in any of the professions, should we tolerate an appeal to the example of Rome; that is left to the Celts and Chartists, and the copiers of the French copy. In every thing, and in every institution which we care for, or are in earnest about, we put our Roman lore on one side far more readily than the French threw away their nationality to adopt the Roman type. Wherever we have done this thoroughly and entirely, success has attended all our efforts; where we have not been able to do it completely we have failed, and in this last category we must, unfortunately, place the fine arts; at the Reformation they sank under the influence of Rome, and their hour of emancipation has not yet arrived.

In itself, I look on the Reformation in the sixteenth century as one of the noblest struggles, and one of the greatest triumphs, that human reason ever achieved, and had it confined itself to emancipating us from the trammels and superstitions of Roman Christianity alone, it would have been a victory resulting in unmitigated good; but it substituted for the old faith the worship of Roman Paganism. The former was bad, but it was living, and was founded on truth and a better state of things—it might have been improved and purified, and ultimately made perfect: the last was dead and corrupt, and so based on falsehood and absurdity that nothing good could come of it. Yet it is this we are told to worship. Had the clergy chosen Greece for their model, it would have been better: it surely was a cruel aggravation of slavery to choose the most cruel and most corrupt of masters, and to bow our necks gratuitously beneath his yoke and worship him.

In spite, however, of all the organisation of our universities and public schools, I believe that we are learning fast to despise, practically, the example of Rome in art, as heartily as we have learned to despise it in other matters. In literature its effect is scarcely felt, or, if felt at all, it is carefully concealed; in architecture it is fast dying out; in painting it never was much felt, except during the French imitation period; even in sculpture, Roman togas are not quite so fashionable an attire for our statesmen, nor do we always think that laurel-leaves and a cuirass and bare legs are requisite to complete the heroism of our soldiers. I feel convinced that, before many years are over, we shall

be ashamed of even the few remnants that now remain of our Pagan idolatries; but, when this is done, we have only cut down the noxious jungle to leave a desert: this is one step in the right path, but unless we can cultivate and turn to use the ground we have cleared, it is as useless and unprofitable to mankind as when covered by the forest.

The great question still remains, What are we to plant in our new acquisition, and how are we to rear it? Unless this is set about, the noxious weeds will soon spring up again, though, perhaps, in a different form; but the result will be the same. One lesson, however, we may learn, even from the act of clearing, which is, to know what were the useless and hurtful plants that grew there before, and we may thus be enabled to root them up whenever they reappear, and to avoid them elsewhere. So the lesson we have to learn from Rome is to avoid her errors, and to hate her crimes; and if we carefully study her history and her arts to learn what we should avoid, we may draw from them as useful lessons for our onward progress as from the more perfect arts of Greece: the one may teach us what to shun, the other how to cultivate; but neither will assist us to a knowledge of what we should plant, nor what fruits we are to expect. The seed must be native, the tree modern and living, and the fruit a part of our heartfelt religion, or it is not worth while attempting it, and success is impossible.

HISTORICAL.

If we divide the twenty-two centuries that elapsed from the foundation of Rome to the destruction of Constantinople into two equal parts, the first will comprehend the whole history of Rome, properly so called, from her foundation till the time when her emperors had ceased to reside within her walls; when she became not the one great city—the capital of the world, but one of the capitals of the Roman empire,—when a new and foreign system of government was introduced,—and, above all, when her Pagan religion had virtually expired, and the Christian religion was acknowledged by the Roman emperor, and its tenets fixed at the first council held at Nice.

With this epoch, therefore, ends our history of the arts of the

ancient world ; and though the two systems slightly overlap one another, the reign of Constantine the Great must always close the heathen, and be the commencement of the Christian civilisation and its exponent arts. With the latter half, therefore, of this great period we have, in the present chapter, nothing to do. During the last eleven centuries of her inglorious struggle for existence in Constantinople, she served as the depository in which were preserved those remnants of the ancient civilisation which were uprooted and destroyed in the fierce turmoils of the West ; and when at length the barbarians who had conquered ancient Rome had advanced far enough in civilisation, she restored to them the palladium she had kept, and having fulfilled her mission, she perished before more ruthless barbarians than those who destroyed the parent city, under whose sway she still lingers, and lingers hopelessly.

Thus divided, the history of ancient Rome subdivides itself into four nearly equal periods : during the first of which she was a Latin city, under Etruscan rule, governed by kings ; in the second, a republic, struggling for independence, which, after the second Punic war, she obtained. From that period till the age of Titus she advanced rapidly, and gathered in her inheritance of the empire of the world ; and during the last she maintained, though with difficulty, the empire she had obtained, which soon after crumbled into dust before the victorious armies of Alaric and Attila, and their cognate hordes.

An Etruscan city, however, she certainly was not, in the strict sense of the word, but an aggregation of Indo-Germanic tribes, formed of Oscan, Latin, Sabine, robber hordes, who congregated on the seven hills, rather in opposition to Etruscan supremacy than either as a colony of that people or even as a city of the league. During, however, the first two centuries and a half of her existence, Etruria was still too powerful to allow the existence of an independent power within her limits, and Rome was governed by Etruscan kings and Etruscan institutions, and under their protection. From this she rebelled, expelled the Tarquins, and set up a republican form of government of her own, for which she was severely chastised, and again brought into subjection by the king of Clusium. But Etruria was then old, and her power waning, while Rome was young and vigorous ; and though it is impossible to extract the exact truth from the tissue of fables by which the Roman historians attempted to conceal their defeat and disarming

by Porsenna, still the fact is undoubted, and much more comprehensible than the cause that led him to retire, and to allow Rome to resume her independent position, and successfully to turn her arms against the disunited cities of Etruria. A second time the Romans were defeated, and their city taken by Brennus; and this time her historians have been able to invent no better fable than to ascribe her deliverance to her sacred geese, who cackled a victory which the Roman arms were unable to achieve: still she was young and vigorous among old nations, and when the strong hand was removed, she returned to her plunderings and unjust aggressions. A third time, under Hannibal, she was defeated in battle after battle; and we cannot now understand what induced that conqueror to spare her in his hour of victory, and not to blot her name from the annals of the world: but again, and for the last time, she was saved,—but, as before, it never was by her own prowess. From this period dates the commencement of her empire; before that time she had neither authors nor arts; and though the Etruscans adorned the city with many beautiful works which have perished, and some works of public utility which remain to this day, republican Rome, up to this period, did nothing but organise themselves for a nation of conquerors,—an organisation, however, far from despicable, as it has had more influence on the destiny of the world, both for good and evil, than even the arts of Greece.

From this period the scene changes: all the nations that then flourished in the world had become old, and were sinking into decay. The Etruscan league had long been crumbling to pieces, and it required only a slight external shock to make it tremble into dust, like the body of her old lucumo, when his tomb was rifled by the modern antiquity-hunter. The spirit of ancient Greece had perished exhausted by her own internal wars, which, even at an earlier period, had rendered her an easy prey to the ambition of Macedon. Carthage, too, was old, and exhausted by her struggles with the young giant; and Spain and Gaul were still too barbarous to resist a military organisation like that of Rome. She alone was young, and alone, from her position, capable of reaping this rich but fatal inheritance of an expiring civilisation. First, the richly-cultivated estate of the Rasena fell to her, with the rich colonies the Dorian Greeks had planted in Italy: then the intellectual wealth, and all the beautiful productions of Greece, were laid at the feet of the young barbarian, and the commerce of Carthage, and

the broad expanse of Spain and Gaul—nothing could now resist the all-conquering Rome. No nation remained capable of competing with her, and, sooner or later, it was evident all must succumb to her power.

Then it was that arose that spectacle we sometimes see in private life, when a lowly-born, half-educated, perhaps industrious mechanic, suddenly inherits immense unexpected wealth, which he cannot know how to enjoy, and is certain to abuse. Thus in Rome we find luxury, and gluttony, and debauchery, inordinate wealth and inordinate pride, in some ranks, with abject poverty and more abject servitude in others, and crime and vice in all.

Had the position of the world forced Rome to struggle some centuries longer before she became so powerful, or had she been victorious in one great national struggle,—had she, like Greece, conquered at Marathon or Salamis, the feeling of pride and patriotism might have saved her much, but in all her defensive wars she was shamefully and ingloriously beaten. Were the story of Cocles or Scævola true—had her arm and not her geese saved the Capitol—had she conquered at Cannæ or Thrasymene, it might have been otherwise. Never, except in her unjust aggressions, was Rome successful; and never from injustice can glory or good arise.

It is usual to date the empire from the accession of Augustus; but the state of things, of which the empire was only the sequel, commenced long before. As early as the wars of Marius and Sylla, it was evident that Rome must be governed by a strong and bloody hand. Even the talents of a Pompey, a Cæsar, or an Antony, or the virtues of a Cato, were unfit to awe and command a brutal people, whose rulers by right were such as Marius, or Sylla, or Catiline; and though pure exhaustion from the lengthened struggle allowed the peaceful and moderate reign of Augustus, Rome was not happy till she could fawn and flatter a Tiberius, could deify a Caligula, and could crouch before a Nero and weep his loss. Though some illustrious names adorn the purple, men whom the vices of Rome could not corrupt, it was indifferent to the people, and they flattered, they obeyed, they worshipped, as willingly a Caracalla, an Elagabalus, or a Domitian, as a Titus, a Nerva, or an Antoninus. The world has never seen such monsters rule a nation as ruled Rome during the empire, nor ever seen a people so abject as to submit to them so long—a people whom no crime could revolt, no brutality

disgust, no cruelty could rouse. Private fears or private wrongs sometimes avenged humanity in the murder of the monster, but the Roman people crawled on in abject indifference. As long as they could live in idleness and wallow in debauchery, as long as the streets were filled with pageants, and the arena of the amphitheatre reeked with the blood of their fellow-men, they cared not what virtuous fellow-citizen was murdered by their master, or how the so-called liberties of Rome were trampled upon. From the fall of Carthage to the time of Constantine, not one just rebellion, not one virtuous combination to achieve a good end, dignifies the annals of that disgraceful period; but sickening scenes of vice succeed each other, till the mind turns in loathing from the record of oft-repeated crime. And this is the people we are taught to worship! the example held up for our admiration! And we turn to them, and expect to find the arts flourish in such a state. Alas, how little they know of art who fancy it could exist in imperial Rome! One shudders at the thought that those bloody, servile hands, could create beauty, or that the mind that revelled in the spectacles of the arena could appreciate its creations when brought before it.

Yet the wealth of Rome could buy, her power could command, the arts of the subject nations; and her political power enabled her to bring to Rome those things which purer hands had created, and which her vanity and love of ostentation rendered it necessary she should possess, though she could not imitate, much less rival them, nor even appreciate their beauties; at least in no Roman author is there one single passage that shews a knowledge of what art really is, or what are its true uses: had there been such, we perhaps would not so long have remained in ignorance of them; and, certainly, no man who knows what art means would ever be guilty of supposing, for even one moment, that such a people as the Romans could either practice or appreciate anything so pure, and so purely noble as art in the only true sense of the word.

But though the artist may turn in disgust and uninstructed from the study of the arts of Rome, there are other points of view in which it would not be easy to overrate the importance of the lesson which a study of Roman history leads to. As a political phenomenon she stands alone, as an instance, in ancient times, of an empire aggregated together out of the most discordant materials; not a mere conquest

like that of Alexander, to fall to pieces with the death of him who created it, but a political institution, kept together by a prudent admission of the conquered people to a portion of the privileges of their masters, and a prudent regard for their prejudices and institutions, followed up with a steadiness of purpose and energy in administration that half awed, half conciliated, the conquered to the irresistible yoke under which they found themselves forced to bow, and which kept the empire together after its heart had become corrupt and the system was rotten to the core. The mass of laws and ordinances required for the regulation of so vast and complicated a machine, which, fortunately, she has recorded, and which have come down to us, present us with the only example antiquity possessed of a system of law, such as law must be if it pretend to subject individual will to the general welfare of the commonwealth. It has formed the basis on which our complex system is founded, and has enabled us to advance further, at this hour, in that science than we could have done had we only possessed the simple codes of Greece, or Egypt, or Judea. But it has enabled us to do this, because we have used it as we should use knowledge so gained. We never adopted the Justinian Codes in their integrity, or even selected any law from them merely because it was Roman, without some alteration so as to adapt it to our own system; and though, in the earlier stages of our legal experience, we borrowed half the essence of their laws, we did it as the Greeks did when they borrowed their arts from Egypt or Assyria,—by adapting such ideas or forms as they required to their own purposes, and gradually amalgamating them with their native forms, till all trace of their foreign parentage was obliterated. This we have done with the Roman laws; and, in consequence of our following the common-sense line in this respect, we have easily been able to surpass Rome in those arts in which she was greatest, and in which she excelled all the other nations of antiquity: a fact, in itself sufficient to prove that Rome was neither greater nor better than ourselves, and that if we can surpass her in what she really was superior, we might far more easily surpass her in what she was contemptible and inferior to all the other nations of antiquity. We have now shelved the Roman codes, because we have got so far beyond them that they are of no further use to us; and had we used the Grecian arts as we have the Roman laws, we should long ago have shelved them too, as beneath us, and conveying, consequently, nothing further

that was either useful or instructive. We have, however, chosen another path with regard to them; and are content to sit down and confess that we are inferior to and cannot surpass Greece in art, simply because we will not try, or, at least, will not do so by the only path by which success is possible.

If we are really to derive any advantage from the study of the history of Rome, it must be by following a course diametrically opposed to the one hitherto adopted. Her domestic history and her arts should only serve as beacons to teach us what to avoid; her imperial history and imperial laws are things we may imitate and derive advantage from following, for in them she was really great: from these, however, we have derived all the benefit we could well extract from them, and, doing this, we have tried to follow the same course with those things in which she was contemptible; adding to this the absurdity of following another and impossible process, nothing but disappointment and absurdity has resulted or could result, and, instead of surpassing the highest art of the Greeks, we are still inferior to the lowest art of the most inartistic nation of antiquity.

ARCHITECTURE.

In attempting to estimate correctly the architecture, or, indeed, any of the arts of Rome, we are forced to turn over a new leaf, and apply to them a mode of criticism which is inapplicable to any of those styles of which we have hitherto been treating. In Greece, for instance, we can contemplate a work of art with the same unmitigated satisfaction we derive from studying a work of nature; we pause to admire what time has spared, certain we see only half its original beauty, and taxing our imagination to recreate what has been destroyed. In Rome, on the other hand, there is no one building on which we can dwell with unqualified delight, none in which we cannot suggest improvements which are obvious to the most uncritical eye; and, in every instance, we must feel that the destroying hand of time has here been of the utmost service in hiding their defects and concealing their vulgarities, and that half their beauties

are derived from his hallowing touch, and the halo which association has spread around what otherwise would shock and disgust us.

Though in this light there is little, if anything, that should arrest us long in Rome, it is almost impossible to overrate the importance of her arts to the historian; for hers was the vast reservoir into which was poured all that belonged to preceding nations, and the furnace in which all that amalgam of different metals was melted which Europe has since been fashioning to her use. There is nothing, in more ancient times, that may not be traced into Rome—nothing more modern that may not be traced out of her; she is the concluding scene of an old, the opening one of a modern, civilisation. She brought together, *en masse*, all the arts of the ancient world, and, after mixing them together “in no very lawful marriage of the arts,” she delivered them to us to make what we could of them; and noble was the use her first pupils made of her legacy, and as ignoble the abuse to which we have applied it. The Gothic architects used her arts as we used her laws; they adopted them at first wholesale, but gradually adapting, altered and improved them, and improved on them till all trace of the original source was lost in these splendid creations of Cologne and the other cognate cathedrals of the middle ages, with all their accompanying arts, which we have been at such pains to destroy by readopting and copying what it took our forefathers ten centuries to obliterate and forget, and, by following a course diametrically opposed to theirs, we have sunk lower and lower till we do not know what art is, or what are its uses or its aims.

Situated as Rome was, between Etruria on the one hand and Magna Græcia on the other, she stood not only between but upon the two typical forms of civilisation of the old world, and could not fail to feel the influence of both. The Dorian, however, was a distant and colonial form in Italy; or otherwise, from affinity of race, Rome probably would have copied that alone: but Etruria was nearer, and by lapse of time had become so virtually indigenous that she had more influence on her arts, at least, than her more germane neighbour. In architecture, Rome borrowed from the first her pillars, and porticoes, and rectangular forms of temples; from the second she borrowed her arches and circular forms: out of the two, she made a style that either of the parents would have been ashamed to acknowledge, and whose one real merit to us is that from this strange alliance our modern Christian arts were born.

ORDERS.

Before the time when the Romans began to build, the Doric order of the Greeks had, as I pointed out above, degenerated sadly from its original purity of style and design; but, besides, it was singularly ill-adapted to the Romans, who had no sculpture and no paintings with which to adorn and complete it. They did, however, adopt this order to some extent; but they further degraded its already attenuated proportions by making it more like the wooden posts of their Etruscan friends, so that the order became, in their hands, about as wretched and inelegant a thing as could well be conceived or executed.

The Ionic order they do not seem to have attempted till a very late period: it never was either an order of the Etruscans or of the Dorians, and, consequently, no specimen of it probably existed in Italy anterior to the epoch of Roman greatness. They did, however, in later times, use it to some extent; but when by itself, it is so clumsy and awkward as to deserve even less praise than the Doric: indeed, I cannot conceive anything more lean and ungraceful than it is. It was better when they used it mixed with the Corinthian in their Composite order. As I attempted to point out above, the Corinthian order rose out of the Ionic by the addition of leaves to the latter, and the gradual suppression of the volutes. In Rome, it returned to whence it came; but, as in everything they did, the Romans never could conceal the joint. They put things together without end, but never so as to make one harmonious whole out of two things, and in this, their favourite order, we see the two originals placed merely one above the other. Had they been fitted into one, as the Greeks did when they were elaborating one out of two, it might have been beautiful again; but that would have required taste and invention, and the Romans had neither.

One of the first things the Romans borrowed from Greece was their Corinthian order. Unfortunately, however, we neither know when this order was first introduced into Rome nor are we able to trace its history from the time we lose it in Greece, in the age of Alexander the Great, during the three centuries that elapsed before it reappeared under Augustus. That it had reached a high degree of perfection at the former period we know, from the elegant monument of Lysicrates; and it is a style so congenial to a luxurious and elegant

rather than a great or powerful age, that it can scarcely be doubted that it was much used, if not in Greece, at least in Asia Minor and Syria, and must, in consequence, have undergone much change in the interval. To the purposes of the Romans it was admirably adapted. They were quite as unable to appreciate as to execute the Doric, or even the pure and elegant Grecian Ionic, but the richness of the Corinthian at

No. 85.



Order of Temple of Jupiter Stator.

once supplied what they wanted. Besides, the pillars could be long or short as they pleased; they could be placed at any convenient distance, having no triglyphs or other ornaments to hamper them; they were adapted to round as well as square buildings, and could be placed at angles or used in interiors with equal facility: but if the plan of a Corinthian building required little thought, the execution of the order required still less. No intricate spirals, no sculpture, no painting, was requisite; everything was purely mechanical, and such as any stonemason could execute. It was little wonder, therefore, that it so soon became a favourite with the Romans; and though introduced from Greece, and probably first executed by Grecian artists, they so adapted and so wrought it out that it almost deserves the name of a Roman order, and the example of it in the temple of Jupiter Stator is undoubtedly the most perfect thing in architecture

Rome has produced.

When the Greeks modified the Persepolitan order into the Ionic we now know by that name, as they did so with a strong Doric feeling

throughout, they subdued the tall Asiatic base as much as they could, so as to make it accord as far as possible with the baseless forms of their own Egyptian pillars. The Romans, however, who had no such feelings,

No. 86.



Roman Base.*

but who stuck together everything they could lay their hands on, seem sometimes to have adapted the original Asiatic base, and with a better effect than is usual in their adaptations: for I believe that, in most instances, a rich pedestal for a column to stand on, would be a more appropriate architectural ornament than a rich capital at the top, where, unless the entablature is very rich and in perfect keeping with it, which it very seldom is, the capital produces a spotty and inharmonious

effect, serving rather to disconnect and separate the parts than to join and harmonise them. Owing to their not liking them, the Greeks seldom were successful in their Ionic bases, sometimes they failed painfully, and, in this respect, even the Romans occasionally were more successful. The annexed woodcut represents one that is worthy of Greece, not in her Doric but in her Corinthian days, and presents, with the preceding example, the two best specimens of detail architecture to be found in Rome.

FORMS OF ROMAN TEMPLES.

As might be expected, the Romans, when borrowing their orders of architecture from the Greeks, adopted, at the same time, the peristylar form of their temples; but in doing this they shewed even less appreciation of their beauties, or of the capabilities and uses of this mode of architectural decoration, than they did of the columnar details which they had so grievously caricatured.

* From the church of Santa Praxede at Rome, reduced from Piranesi's "Magnificenza."

There is not in Rome, I believe, a single instance of a perfect peristylar temple; generally it is merely a cell, with an attached portico: sometimes the order is continued in three-quarter columns attached to the side of the cell, and, occasionally, the colonnade is carried round their sides, but then the length of the side ranges is little more than that in the front, and the consequent elegant proportion which is gained by the contrasted lengths in Greece is here entirely lost.

One temple at Rome, that of Venus and Rome, is generally restored by architects as if it was a perfect peristylar example, and of the most splendid dimensions (362 feet by 177). As, however, not even one single base of a column has been found *in situ*, I must be allowed to have my doubts as to whether anything so exceptional ever existed. All we know for certain regarding it is that there are here two temple-cells, placed back to back, and so joined together as to look, or try to look, like one temple; if they were surrounded by a peristyle at all, this might aid the deception, but its existence—and, certainly, the dimensions assigned to it—are too uncertain to admit of any argument being founded on it.

Besides this very apocryphal one, all the other temples at Rome were singularly small and insignificant. That of Jupiter Stator, for instance, was 92 by 140 feet; of Jupiter Tonans, 67 by 85; of Mars Ultor, 112 by 120 feet; if we may trust the restorations, the temple of the Capitoline Jove was considerably less, and all the others were smaller than these much-vaunted examples.

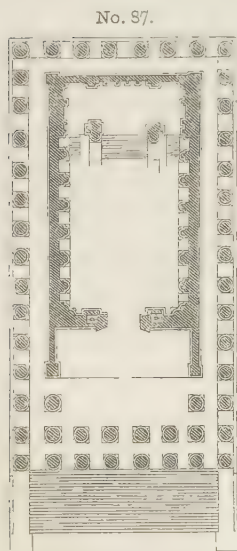
Religion, however, was never a characteristic of Rome; she was content, from first to last, to borrow her gods from those around her, and adopted in turn those of almost every nation with whom she came in contact, caring apparently very little who they were or whence they came, merely hoping, by honour and worship, to propitiate them, and deprecate their vengeance on her acknowledged crimes. It would, therefore, be unjust to look to the capital alone for specimens of her temples, and would be leaving the subject singularly incomplete if we were to judge from them alone of the architecture of that age.

I have already alluded to those erected in Egypt under her influence; they, however, were all, till a very late period, in the native style. Syria, however, seems, in the age of the Cæsars, to have been to Rome what Ionia was to Greece, her richest and most architectural province; and among the ruins of her cities we find remains of temples that throw

those of the capital into the shade. It was only in size and technic splendour that those of Ionia surpassed those of Greece; in the higher branches of art they could not approach them. But as those of Rome never pretended to more than mere masonic magnificence, they must, unlike the Greek examples, yield the palm to their Asiatic rivals, which possessed these merits in even a greater degree.

It is not, however, easy to institute a correct comparison, in all instances, between the Syrian, and the Roman or Indo-Germanic form of temples. At Palmyra, for instance, the temple, properly so called, is generally small and more insignificant than even the Roman examples, the splendour of the edifice consisted in its court, surrounded by double and treble ranges of columns: the same is true of that at Jerusalem; besides a double portico on three sides, it possessed on the south a royal porch, 600 feet long by 105 wide, supported by 162 Corinthian pillars, in four rows, dividing it into three aisles, which alone must have been a nobler form of architecture than anything appertaining to a temple the capital could shew: but the temple itself, in this instance, had no pillars, and was only 75 feet by 150.*

There are, however, at Baalbec two peristylar temples, which when complete, with their courts and accompaniments, must have formed a scene of gorgeous temple architecture, unmatched by anything in the Roman world. The dimensions of the largest (160 feet by 290) are only second to those of the temple of Jupiter Olympius at Athens (171 by 354, see woodcut No. 64); it probably, however, was never completed. The smaller one, however (117 feet by 227), is still as perfect as almost any example of its class in the Roman world; and I have chosen it as an illustration of a perfect peristylar Roman temple, though not the largest, because its dimensions are so nearly those of the Parthenon, that it forms a fair means of comparing the two styles, and judging of their relative merits: not, indeed, from the woodcuts, as they are on so small a scale as only to shew their masonic form, omitting all the minuter details,—a mode of comparison entirely in



Smaller Temple at Baalbec.

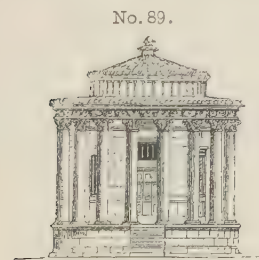
* See "Topography of Ancient Jerusalem," by the Author, *passim*.

favour of the Roman examples, whose more slender and taller proportions and more ornate architectural details, contrast favourably with the lower proportions and massive plainness of the Doric; and if the Corinthian order was in this instance carried out with the same exquisite purity and taste as pervade every detail of the other, I have little doubt but that, technically, it is superior to it. The Roman temple, however, never was painted; and even, notwithstanding the richness of its carvings, which are so effective at first sight, they are in detail so ungraceful and tawdry that they will not bear the comparison with those of the Parthenon. The great difference, however, between the two consists in the phonetic sculpture, which constitutes half the merit of the Greek example, but of which there is not a trace in the Roman one.

Estimating their relative merit by the numerical mode of criticism, and taking the Parthenon as the typical specimen, its value is 4 technic, 4 æsthetic, and 4 phonetic, equal to 24, while this temple, even allowing it a degree of perfection in execution to which it cannot in reality pretend, cannot rank higher than 6 technic, 4 æsthetic, allowing it richer carving to make up for the absence of colour, and certainly it cannot

claim more than 2 as its phonetic value, equal to 20 altogether; and this is assuming it to have all the merits which a specimen of Roman architecture can possess, and taking these merits at their fullest value.

Besides these rectangular forms of the Greeks, the Romans naturally adopted from the Etruscans their circular ones, and used them so as almost to entitle them to the merit of having invented a new form. The circular form is the typical one of the Pelasgic races, and probably was used by them at all times and for all purposes, but it



Temple at Tivoli.



Smaller Temple at Baalbec.

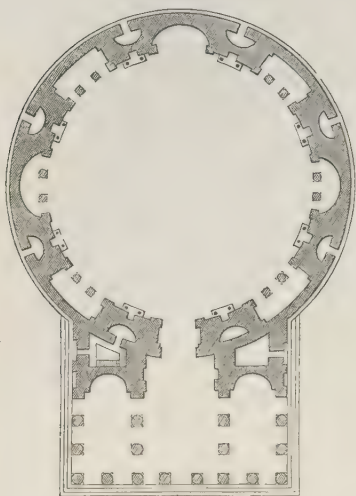
was apparently left for the Romans to bend round it a Grecian colon-

nade, and thus convert what may before this time have been only an interior into a piece of external architecture, which though, perhaps, not capable of the same expression of power, or grandeur, as a rectilinear one, was nevertheless both ornamental and elegant, or, at least, would be so

for a garden pavilion or any such purpose, though scarcely suited to a temple.

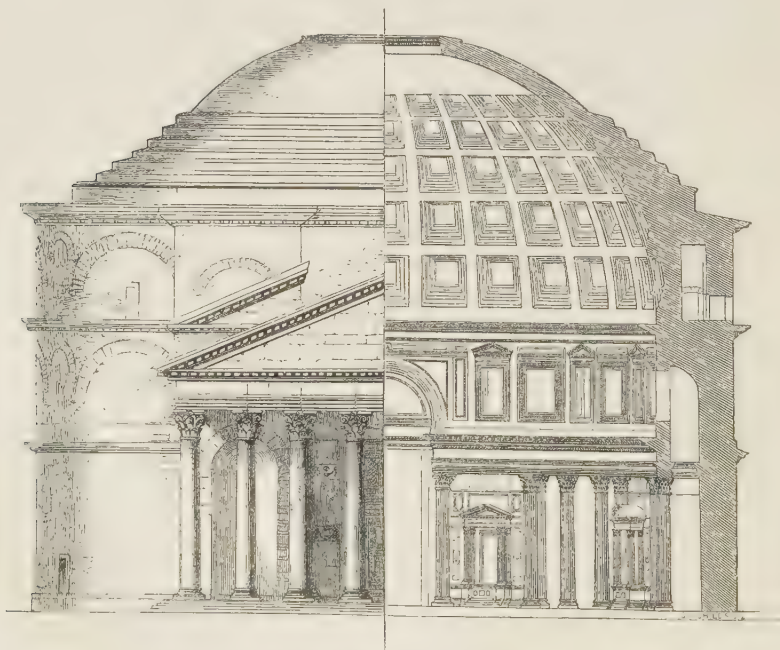
Of all the temples of the Romans, however, the Pantheon (if it was a temple) is by far the most original and typical, and as an interior it is unmatched in the ancient world; for conception, at least. There is a simplicity about its proportions, the height being exactly equal to the width, and in the mode in which it is lighted by one circular opening in the roof, which, joined to its large dimensions, give it a character of grandeur that redeems the too Roman clumsiness in detail, which would utterly spoil any edifice less grand and less simple in conception.

No. 90.



Pantheon at Rome.

No. 91.



Pantheon, Elevation and Section.

That it is the lineal descendant of the tombs of the Atridæ at Mycenæ does not to me admit of a doubt, but we, unfortunately, are

unable to trace almost any of the links of the chain that connects it with them or their own Mamertine Prison. We cannot even say when first the true vault was substituted for the horizontal one of the olden times; most probably this, however, was done by the Etruscans themselves, when they became familiar—which we know they did at an early age—with the advantages to be gained by substituting the true for the horizontal arch in their bridges, city gates, and vaults: for when they practised it in one they could not long fail to see its advantages in the other. Be this as it may, there must evidently have been many attempts on a smaller scale before so bold a flight was attempted as this, which, both for size and proportion, is yet unrivalled. Almost all the modern attempts at imitation fail, from attempting to combine the Gothic steeple with this Etruscan vault; and being ashamed of losing so much space and making it entirely a sham, the internal vault has been carried high up into the external ornament, thus ruining both its proportions and its size. The dome of St. Paul's, for instance, would have been infinitely more pleasing in proportion, and both it and the church would have looked much larger, if, instead of being twice its width in height, it had sprung from the whispering-gallery or the string course immediately above that. Over the intersection of a nave and transept, where the floor is so wide, a dome may be once and a half its width without offending; but, circumscribed as the floor of the Pantheon is, it would have been a more agreeable proportion if the dome had been an oblate spheroid, at least 10 or 15 feet lower than it now is: as it is, it crushes the drum or perpendicular part, and makes its decorations look more insignificant than they should do.

Externally, it is as ugly as it well can be made; it looks as if it were dug out of a tumulus, and has neither a feature nor detail in its original form which its architect would not have wished buried in earth again, as its prototype probably was. To remedy this defect, a portico was afterwards added, Greek in detail but Etruscan in arrangement, like the edifice itself. Its germ is such a portico as that represented in woodcut 67, with only a sufficient number of columns inserted in the spaces to support a roof of the dimensions required; its size, however, is very inferior to that of even the small temple at Baalbec* (woodcut 88),

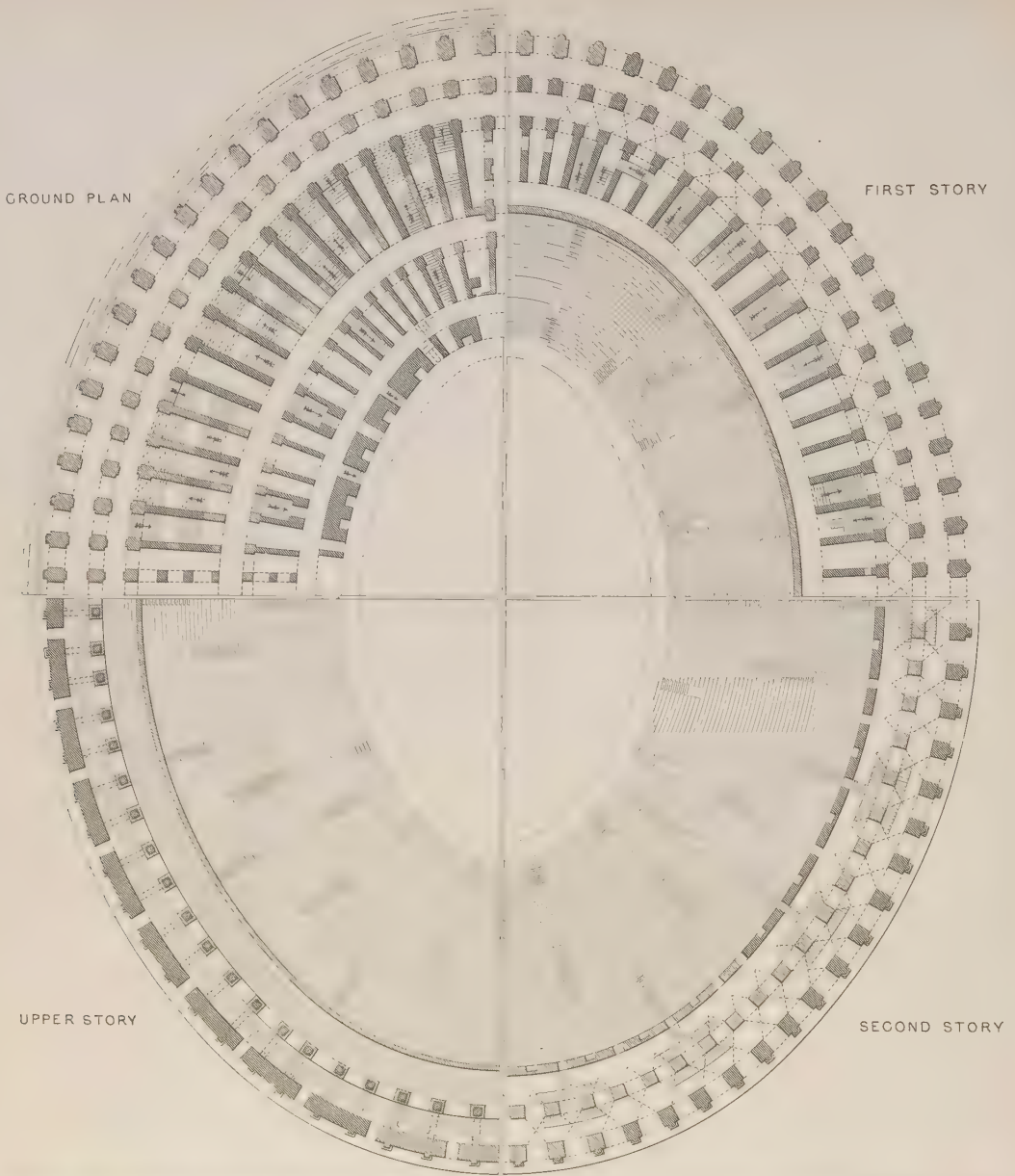
* If the portico of the Baalbec monument were substituted for that of Agrippa, its lines would agree exactly with the lines of the Pantheon, as may easily be seen

by placing the one woodcut above, or alongside, the other; its cornice ranges exactly with the middle one of the Pantheon, and the apex of its pediment with the upper one.

and it has neither the elegance of proportion, nor the richness of detail, which go so far to redeem the other deficiencies of that example. The pediment here, however, was probably ornamented with bronze sculpture, and there is a boldness and simplicity about the order which render it one of the most unobjectionable Roman examples. Anywhere else it would be a beautiful object, but nothing can well be more incongruous, —or, I may say, more Roman,—than the mode in which two objects, both possessing considerable merit in themselves, have been brought together so as to destroy as far as possible any beauty that either possessed separately. Not one line or one detail of the portico agrees with anything in the circular part of the temple, but it is crushed by its mass; while the crude ugliness of the circular part, which one might forget if it stood alone, is brought out and made obtrusive by the more ornate forms of the portico. Nothing can be more apparent than that they are not one design, or even belonging to one style, but two second-hand articles, which the Roman had borrowed, but did not know how to use; he could not invent such things, and had not even commonplace ingenuity enough to fit them together when he had got them.

Nothing can shew more clearly how essentially the art of the Greeks differed from that of the Romans, than the ignorance of the latter people of the true principles of design. If a Greek, for instance, wished to build a temple, or an edifice of any sort, which was either one apartment or meant only to express one idea, from the doorstep to the acroterion of the roof every part was harmonious and symmetrical, and the whole bound together with a degree of mathematical regularity that has never been surpassed. If, on the contrary, they had two edifices to erect, or two apartments under one roof, they shewed even more ingenuity in making the exterior express the difference; and the same principle pervades all true art. In the present instance, however, we find an Etruscan dome treated with a certain amount of Greek detail, and a Greek portico arranged with a certain degree of Etruscan feeling, but in neither instance enough to bring them into harmony: the two parts are then stuck together, but so clumsily that no one can fancy for one second that they are one design, or fail to see that their juxtaposition is accidental and most inharmonious.

On the other hand, in the temple of Venus and Rome above alluded to, the Roman architect knowingly put together two temples, and tried to conceal the junction, so as to make up a great sham, which he would have us believe was one. Even if the vulgarity or tawdriness of their



GROUND PLAN

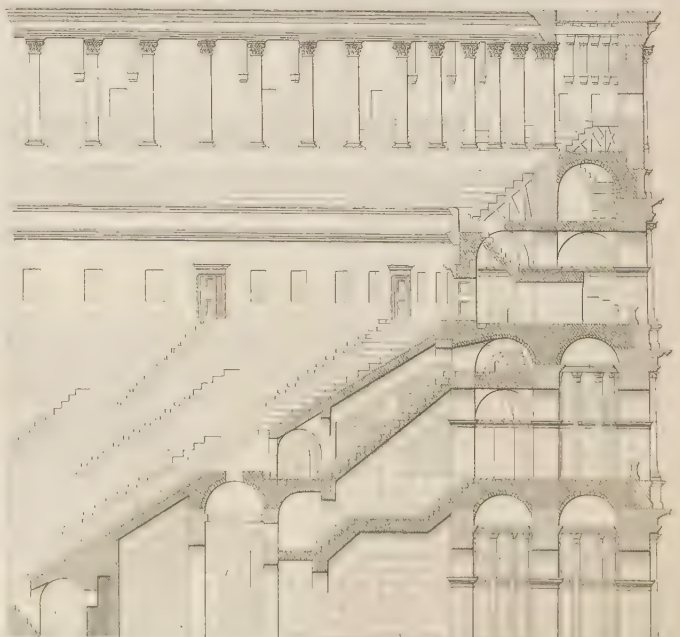
FIRST STORY

UPPER STORY

SECOND STORY



EXTERNAL ELEVATION



SECTION

details did not in itself suffice, this ignorance of the fundamental principles of design would be sufficient to shew how essentially Greek art differed from Roman, and how nearly the latter had sunk to the level of the arts of the nineteenth century, even in the day of her greatest pride, and in one of her greatest and most successful specimens of art.

CIVIC BUILDINGS.

If, however, neither the religious nor artistic feelings of the Roman people induced them to erect temples as magnificent as those of Egypt, nor as beautiful as those of Greece, still their capital was adorned with buildings in their kind as magnificent as any the world has seen, and not less characteristic of the pursuits and passions of the people.

In speaking of Egypt and Greece, I selected the Hypostyle Hall at Karnac, and the Parthenon, as the two general types of their respective styles; and, in like manner, we may with equal propriety select the Coliseum (Plate IV.) as the type of the Roman style, as containing all its beauties, and characterised by all its defects. In size and splendour it is worthy of the Roman empire, and its purpose rendered it not only the favourite but the principal building of that great city, while in the days of its glory; and its ruins even now appear as eternal as the Roman name, and hand down to us a more perfect picture of Rome than the pages of Livy and Tacitus: they awe us, in spite of our better judgment, into admiration of the greatness of the Roman name, though, in reality, few buildings are more tasteless in design, and more faulty in detail. Still it has two great elements of architectural effect, which cover a multitude of minor errors—its immense size* and appropriateness for the purposes for which it was erected.

Constructively, the building consists of a series of Etruscan arches,

* Some of the Greek theatres in Asia Minor were greater in diameter than even the major axis of this ellipse; and as they were semicircular, and the scenium was in proportion, I believe they covered more ground: they certainly were far more beau-

tiful, if not quite such large edifices, as this much-vaunted piece of tasteless barbarity. Their plans and details have not yet been published, and I am, therefore, obliged to forego the opportunity of instituting a comparison.

covered and enclosed in a network of Grecian pillars, with their entablatures; utterly inappropriate, and merely used as decorations, and totally distinct from the constructions. Besides this, the orders are as bad and tasteless in themselves as in their application, and the upper one especially is lean and inappropriate to a painful degree. Here, however, when it is explained that it was for the supports of the velaria, that this is cut up and destroyed, the mind assents to the utility of the expedient, and can only regret that an order was used at all, and the constructive exigencies not allowed to speak for themselves. The amphitheatres of Verona and Pola are less open to this objection, which still, however, destroys much of their beauty, as well as of those of Nismes and Capua. The external form of the Coliseum, of course, followed that of the Arena, but it was by no means one unfavourable to architectural effect; and had the decorative pillars and pilasters been omitted, and merely the bold series of arches risen tier above tier over one another, and the whole been crowned by a cornicione, of a projection and mass proportioned to the height of the whole edifice, it might have been a far nobler building: be this as it may, its materials have built half the palaces of Rome; and its principles, bad as they are, are the foundation of the modern school of Italian architecture; and half the palace-façades of modern Italy are mere variations of the incongruous architecture of its exterior. But it was classic, and, of course, must be beautiful.

The Romans, it is generally supposed, borrowed the practice of gladiator fights from the Etruscans; and it appears tolerably certain that the latter did practise them, though, perhaps, only in later times, or at funereal games. Still it is difficult to understand whence the Rasena could have brought them, certainly not from Asia; and it does not appear that they were so much the fashion in Etruria proper, as in Capua and some of the remoter cities of the league: so that I should feel inclined to assume them to have been rather the games of the Umbrians, who, it must be recollected, dwelt with the Etruscans in all their cities, and of the native Oscan tribes, than of the peaceful, blood-hating Rasena. On the other hand, the single combat and duel, in all their forms, appear so eminently a characteristic of the Indo-Germanic races, that I should feel inclined to ascribe not only their invention, but their use, solely to them. But here we are met by the previous inquiry, What do we know of the Rasena and their customs? and till these are better answered than we can do at present, it is idle to speculate on such questions. Wherever they came from, it was only a bloody,

warlike race, like the Romans, who could have carried them to the extent they did. Nowhere, I believe, in the history of the world, was so much human blood spilt for mere amusement; and it was impossible that Rome should escape the curse of brutality and debasement which the crimes of the arena alone were sufficient to bring upon her. But she revelled and gloried in them more than in any of her institutions, and the greatest and most splendid ruins she has left us are the edifices dedicated to these bloody rites, which, strange to say, we read of without horror, and, if anything, rather with admiration.

The Triumphs were another institution, which, though copied from the Etruscans or those who lived with them, continued from the earliest times till the reign of Constantine, formed most important epochs in her history, and gave rise to another class of buildings infinitely inferior in size to the amphitheatres, but in the same style of architecture, namely, constructive arches, with columns used merely as ornaments. They, however, depended for their decoration more on sculpture than architecture. Still, the construction here so completely overpowers the decorative part that they are in very much better taste than most of the Roman buildings, and might easily have been improved into objects of great beauty. Unfortunately, however, they were introduced just as the art was verging towards decay, and each succeeding one was more tasteless and tawdry than its predecessor, till the last was obliged to be pieced together from fragments stolen from other edifices. At first they had, apparently, only one arch or opening, as in that of Titus (woodcut 92); but afterwards the larger arch was flanked by a smaller one on each side, as in that of Septimus Severus (woodcut 93, both to the



Arch of Titus.



Arch of Septimus Severus.

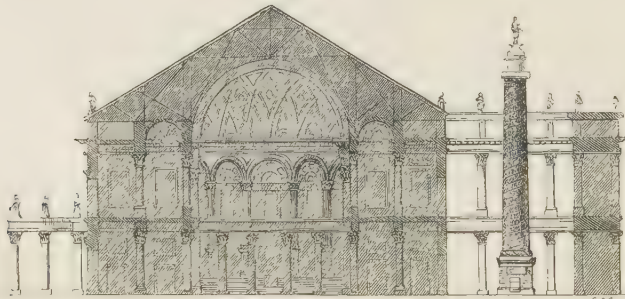
usual scale), which is certainly a more pleasing form than the other, and as graceful as anything of the sort that has yet been done.

These triumphs gave rise to another class of monuments—the *pillars*, such as those of Trajan and Antoninus, of much more questionable taste than the arches, as might be expected from their being wholly of Roman invention: for no other people of antiquity would have shewn that extreme poverty of invention, or want

of knowledge of art, as to take a constructive part of an edifice, designed to support an entablature, and magnify it into a pillar of Victory, to support, at most, merely a statue, and then to cover the shaft with sculpture, for which it is as ill-adapted as can well be conceived. Had the same sculpture surrounded a temple or basilica, in the manner of the frieze of the Parthenon, or in the interior of such a building as the Pantheon, it would not only have been an interesting record of events and costumes, but would have formed a beautiful ornament to the building. It still is the former, but it would be difficult to conceive a position in which its effect was more destroyed, and in which it could be placed so as to be more incapable of being seen and understood, than in its present position. As it is, however, it forms the principal merit of the column, and it required a further decline of the arts to cause the erection of such a one as that of Alexandria by the Emperor Phocius, or that of Palmyra.

Bad, however, as these sculptured columns of Rome were, it must not be supposed that they were, when erected, placed in so absurd a situation as we now see them in, or that in any age of the world except the present, it would occur to grown-up men to erect such absurdities as the Nelson and York columns, that disgrace not only the capital but almost every provincial city of importance in the kingdom. Fortunately, the excavations have disclosed enough to shew that Trajan's column was placed close to a basilica, which could not be many feet less in height than itself, and in a small courtyard which more than probably followed the lines of the basilica; in reality, therefore, the column was not visible at a distance, but formed the central ornament of a small court—I had almost said apartment,—of two or three

No. 24.



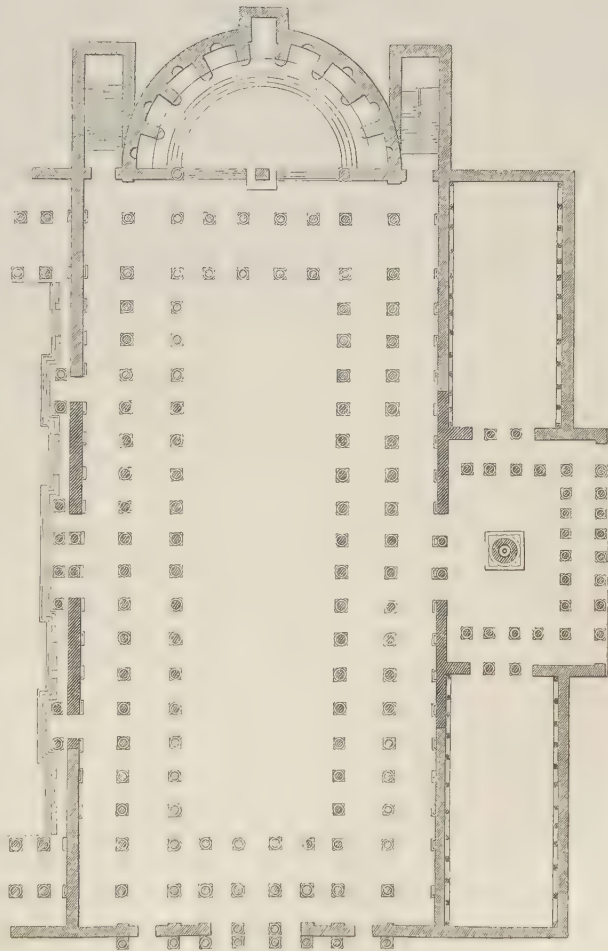
Section of Basilica of Trajan, half usual scale.

stories in height, so that the spectators could walk round and round

it, on various levels, and approach within forty or fifty feet of any part of its sculptures, so as to view them at the most favourable angle and the most convenient distance: an arrangement that is better explained by the annexed woodcut (No. 94) than by words. Its position originally must have been something like that of the Egyptian obelisks, such, for instance, as the four at Karnac (Plate II).* Viewed in this light, it is not so ridiculous as its copy in the Place Vendôme, and other still more wretched imitations; but still it is bad enough, and such a monument as only a Roman could in those days erect.

No. 95.

Another class of buildings, as characteristic of Rome as these, and more important than her temples, were her basilicas, which the increased importance of jurisprudence and of public business generally rendered requisite and essential parts of her architectural exigencies. The history of the basilicas, unfortunately, is as unsatisfactory as that of all her other artistic forms, and we can scarcely guess whence they came or how they grew into their present forms. Those of Pompeii and Herculaneum are the oldest of which we have a distinct idea, but they, like everything else in those cities, are more Greek than Roman,

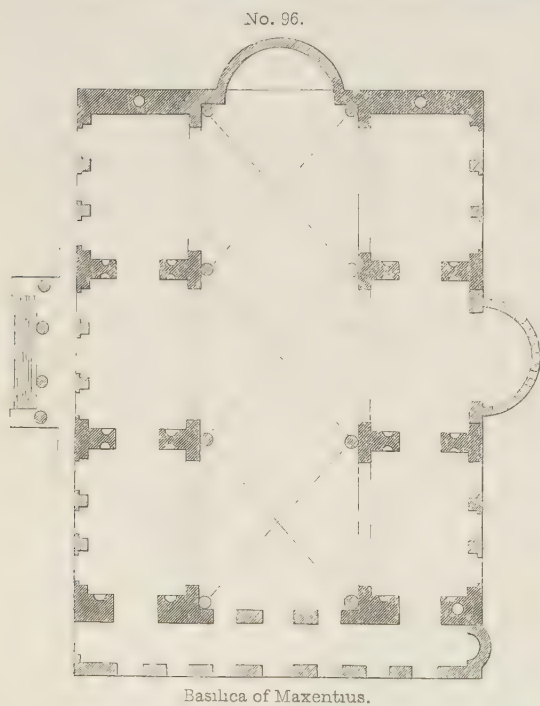


Basilica Ulpia.

* Had the French placed their obelisk at the court of the Louvre, it would have been an important and appropriate monu-

ment; by placing it where it is, they have done all that mortal men could do to render it insignificant.

and may be derived from different sources : they are rectangular throughout, and may be copies of the Greek *Lesche* ; or, perhaps, they are only peristylar temples turned inside out ; or what is, perhaps, the most probable theory, are Greek hypæthral temples, the peristyle omitted, and the internal intercolumniation widened, so as to produce more space and convenience, at the expense of durability and artistic effect, which in such edifices are of secondary importance. Be this as it may, one of those we know most of at Rome is, fortunately, the one the ancients themselves acknowledged to be their most splendid specimen. In the annexed plan (woodcut 95) and section (woodcut 94) I have attempted to restore it as far as the excavations and information at our command will allow,* at the same time without attempting any artistic effect, for which we have no real authority. The roof of the centre aisle was ornamented, apparently, with bronze



plates, and being upwards of eighty feet in diameter (nearly twice that of our largest Gothic cathedral), must have had a splendid effect, and been a worthy rival of the Pantheon, if, indeed, it did not surpass that building, which I am very much inclined to believe it did in artistic effect, though the other had the advantage in durability of material, and consequently appeals to us in a manner the Basilica cannot pretend to.

Another basilica, that of Maxentius, commonly called

the Temple of Peace, was a bolder attempt at constructive magnificence than that of Trajan, which it surpasses in width, though inferior in length, and, so far as we can judge, was a less artistic production, and far less beautiful

* The plan is to the usual scale : the section is to the same scale as the plan, and, consequently, only half the usual scale.

As it is only a restoration, I have not thought it worth while making it larger.

building. It was, however, for rectangular vaulting, what the Pantheon was as an example of circular construction, and formed the model from which all our Gothic vaulting constructions took their departure; though no mediæval cathedral ever reached the span of its arches, or the size and expanse of its vaults; not, I believe, from any inability to do so, but because the architects judged rightly that a greater number of smaller parts, properly disposed, would produce not only a more pleasing effect, but a greater appearance of size, than a few gigantic ones; and thus a Gothic cathedral of the same external dimensions as this basilica would appear, internally, nearly twice as large, besides being far more beautiful and more easily constructed.

Another class of monuments, as characteristic of Rome as any of these, and as peculiar to her position in the world, are the baths or thermæ, the gigantic remains of which still excite astonishment among the ruins of the imperial city. Except the amphitheatre, none of her buildings can be compared with them in mass, and when complete they probably were far more beautiful as artistic productions, as no buildings could more emphatically be objects of luxury than they were, or less restricted by any utilitarian exigencies. Unfortunately, we have not any good means of judging of what the effect of them really was; for, though they have been measured and restored fifty times over, I do not know of one plan or restoration on which dependence can be placed, or in which the architect or antiquary has not been more anxious to bring forward his own learning or taste than to reproduce facts as he found them.

Those of Pompeii are so small, the principal apartment being scarcely 50 feet by 18, that it is scarce worth while to reproduce them here as monuments; while those of Rome are so immense, the principal mass of building,—in those of Caracalla, for instance—being in itself 720 feet by 390, exclusive of the projecting dome, it makes it even less worth the trouble of engraving it, unless it could be done in a trustworthy manner. In an historical point of view, few works would be more interesting than a good illustration of these extraordinary buildings; but, from their age, they could not possess much artistic merit: nor could we learn anything in construction from them, nor anything applicable to an attempt to introduce baths into this country on a more extended scale than has hitherto been done. Such baths as those of Rome could only exist in a city so peculiarly situated as ancient Rome, into which,

from accidental circumstances, the wealth of the world was poured, so as not only to enable her inhabitants to erect such enormous edifices for such purposes, but where also the bulk of the citizens could afford to pass the greater part of their time in idleness and sensual gratification. Other cities have become rich by commercial industry, or great from the intellectual energy of their inhabitants; to neither of these were such edifices applicable, but only to the mistress of a subject world, living on the industry of others, or on the spoil or tribute which from her position she was able to wring from subject kingdoms or conquered provinces. There could be few chapters more illustrative of the history of Rome, though none, probably, less applicable to any of the countries of Europe under almost any conceivable circumstances.

Another singular class of monuments that throw much light on the history of Rome are the tombs. As an Indo-Germanic race, it is not a little startling, at first sight, to find them possessing tombs at all; but when we bear in mind the strong Etruscan element that pervades all their civilisation, and peeps out now and then when least expected, their tombs not only become intelligible monuments, but, under the empire, represent the element which, so far as written history is concerned, we lose sight of on the extinction of the early kingdom. As works of art, they are generally better than most other Roman buildings: indeed, they seem to have copied the Etruscan tomb or Grecian cenotaph, with far less attempt at their own clumsy invention, than in almost any other class of buildings, and some of them are of considerable beauty and suitable solemnity of appearance. It is true, however, that they are so completely ruined, that we have but little means of judging of what the true effect of the great ones of the empire must have been when complete; and one cannot help suspecting that, like everything Roman, they are far more beautiful in decay and ruin than when displaying the gorgeous vulgarity of their designers. The taste displayed in them was probably bad, but still not without a sense of that power which sheds a melancholy tinge of greatness over everything Roman, even her crimes. Generally speaking, the greater ones, such as those of Augustus or Hadrian, or that of Cecilia Metella, were circular in form, like the tumuli of the Etruscans, which they resembled in most respects, only that with the Romans, as might be expected, the low circular basement that surrounded them was magnified into a principal object, so that at last they assumed

more the form of a circular tower with a conical roof than that of a tumulus. In their smaller tombs, the Romans copied the rectangular rock-cut or structural tombs of their prototypes, only adding a few inappropriate pilasters or three-quarter Greek columns, so as to spoil the simplicity of their effect, but, at the same time, to mark them as truly Roman works of art.

On the whole, perhaps, the best and only really satisfactory works of the Romans are those we usually relegate to the engineer; their roads and bridges, their aqueducts and ports, and their fortifications, are conceived on a scale, and executed with a solidity, worthy of the greatness of the empire. These they derived solely from Etruria; the Greeks offered them nothing which they might incongruously mix with them. Besides, the exigencies of the works of this class kept their vicious taste in restraint, and they went to work, in this case, with an earnestness of purpose and distinctness of aim, and consequently carried them out with a far better feeling than that which pervaded their more ambitious, and what they attempted to make, more artistic productions. Indeed, in almost all Roman buildings, what we most admire is the mass and the constructive magnificence: in those which more directly belong to architecture, the effect is oftener spoiled than aided by the ornamental details; but in those which we should call engineering works, there was no temptation to introduce incongruous or inappropriate ornament, and we can, in consequence, admire them without being shocked by the inconsistencies and bad taste so destructive to the beauty of their buildings, which, from the scale on which they are conceived, and the quantity of ornament lavished on them, ought to have been the greatest architectural productions in the world.

Greatness and richness, however, though two of the principal elements of architectural effect, are not the only ones; and though many of the Roman edifices add appropriateness to these qualities, even that will not suffice: ill-understood or ill-applied ornament, concealed construction, the juxtaposition of inappropriate parts, and the junction of incongruous ornaments and styles, copying and borrowing blindfold instead of inventing,—in short, a want of artistic feeling and understanding of the subject, characterise and spoil all the architectural efforts of the Romans: and though their history and art are vast and imposing, it would be well for us if we could learn to shudder at the idea of imitating the one, and shrink from copying the vulgarity and bad taste of the other. Their

engineering works, however, as being not so open to this objection, might be copied without the same bad effects as their æsthetic architecture; and, indeed, have been copied by us, but in the same mode as we copied their laws, not by repeating their forms wholesale and without thinking, but by extracting from them every hint and adopting every form that might be useful to us, and by rejecting everything that was bad or was not wanted, and always trying to do better and improve on our prototype. This we have easily and successfully accomplished; our engineering works are, in every respect, better and grander than even those of imperial Rome herself, and we should now feel ashamed of turning to her for models, as we can do so much better ourselves.

In the course of this inquiry, no fact has struck me more forcibly, or seems more pregnant with important consequences, than the facility with which we have surpassed the Romans in the two arts in which they were really original and successful, those of law-making and civil-engineering, while we bow before them and acknowledge our too evident inferiority to them in literature and the fine arts, in which they were so inferior to all the nations of antiquity, and neither ever did an original thing, nor achieved a respectable success. If any one can offer a better explanation of the phenomenon than its arising from a thoroughly vicious system of education, which I believe to be the true one, he will render a service to the cause of art; for, knowing the cause of the disease, we may discover the remedy. To me, neither the cause nor the remedy seem in the smallest degree either doubtful or difficult.

SCULPTURE.

Of all the arts, sculpture seems to be the one least liable to be affected by individual caprice, or by the vagaries which misapplied ingenuity sometimes introduces into the sister arts, when in the hands of a people with whom they are not native or not understood. True it is that modern Europeans have rendered it inane, by a silly system of copying, and modern Hindoos have rendered it absurd by introducing additional legs and arms to express a puerile system of mythology; but these are exceptions, and there seems something in the want of pliancy

in the material, in the necessity of every part being finished all round, and more perhaps in there being only one mode of expression,—simply that of form without shadow and without depending on colour,—that keeps the fancy from running riot; and there is also something in the fewness of the objects it is capable of expressing, that limits the sculptor to a degree of common-sense which the painter, and even the architect, too often dispenses with. From these causes, principally, it arose, that in sculpture the Romans did less that was wrong than in either of the other arts. With them, æsthetic sculpture remained pure Greek, and was, indeed, principally executed by Greek artists in the capital, or by Romans who had learned and followed their system; and to this class may be referred all the statues of the gods, or of mythological subjects, found in Rome, though sometimes, it must be confessed, we find men and women represented as gods and goddesses, with all their attributes—a truly Roman invention and characteristic piece of Roman flattery; and more often we find the gods represented as men and women, which is, if possible, still more characteristic of art in Rome than the other: but that class of sculptures which alone deserves to be, strictly speaking, characterised as Roman, is the portrait-statues of their emperors and great men, and the *bassi rilievi* which adorn their triumphal arches and pillars. The former, though not free from faults, certainly shews a degree of purpose and character which redeems it from many of the faults of the other arts of the Romans; and many of the statues are conceived with a grandeur which may fairly be called truly Roman, and executed with sufficient detail of costume and finish to render them pleasing as works of art, without detracting either from their individuality of character or greatness of conception. As portrait-statues they are, probably, the best examples we possess; but those very qualities which give them value as portraits of Romans, render them utterly unfit to serve as models for portrait-statues of contemporary characters, though the contrary is the practice of modern sculptors.

The same praise can scarcely be applied with justice to the other class of sculptures, the *bassi rilievi*, though they are not, by any means, without merit. In purpose they resemble much more the historic sculptures of the Egyptians than anything we know of in Greece, but they are neither conceived on the same scale of grandeur, nor have they that simple *naïveté* which is so charming in the Egyptian works, nor do they tell their

tale with the same unmistakeable distinctness; for without a tolerable knowledge, not only of the history of the time, but of who the emperor was who erected the buildings on which they are found, and why he did so, they would be of little use to us as historical materials. At the same time, they do not pretend to any dramatic interest in the events they record, nor do they, by grouping or artistic arrangement, either of the picture or details, make any appeal to us as works of art; but, notwithstanding all this, they fulfil one of the objects of art, and interest as instructing: they represent with fidelity the costume of the time, and the artist tells, as far and as distinctly as his art would allow, the tale he wished to repeat: they neither offend by ill-understood or absurd allegory, nor do they pretend to anything they do not possess. Poetry was not their object, but simply to represent the events of a campaign or the occurrences of the basilica or the chase; and these they do represent as faithfully as a very imperfect art would allow. But in another point of view they are meritorious, inasmuch as they always ornament and add to the effect of the buildings on which they are found, and go far to redeem the absurdity of the architecture: for when we recollect that these arches and pillars were intended principally as a framework to support the sculpture, they lose half their absurdity; and not only does the sculpture adorn them, but they account for many of the peculiarities of the sculpture, so that we cannot arrive at a just estimate of the one without reference to the other. It is difficult, however, to do this in modern times, for we delight in decorating our capitals with their skeletons only,—setting up, in fact, the picture-frames, but utterly forgetting the necessity for the picture; and when we do try to supply this deficiency, as the French sometimes have done, then comes the necessity of putting our generals and soldiers into classical costumes, and replacing our cannons and muskets by battering-rams and spears. We then become almost aware of the absurdity of what we are doing, but in vain: we admit it is bad and absurd, but we can do no better, so we must console ourselves with a shrug of the shoulders, and be content with the idea that it is classical; though classical it is not, for it never was classical to copy or to retrograde in art,—knowingly, at least,—as we do. Even in unartistic Rome it was classical for the artist to do the best he could, and if he failed it was not because he would not, but simply because he could not do better: he had no system that

commanded him to retrograde, as well as to copy barbarism rather than create beauty ; it was because their pursuits and habits were coarse and vulgar that the Romans could not succeed in art, not as with us the result of a system, that makes creation impossible.

PAINTING.

We have scarcely more means of judging of the painting of the Romans than of that of the Greeks ; for though we have many mural paintings of the time of the Roman empire, not one of them can be identified as one of the celebrated works of art of which the ancients themselves were proud, and it is scarcely fair to judge of the state of art with them from what they themselves considered as little more than mere decorations. But even among them it is very doubtful if we really have one original design, and whether they are not merely copies, perhaps reduced from some great originals, and inserted among the arabesques and other ornaments, of which they form a part, but scarcely can be considered separately. Of those in the baths of Titus, which belong to the best age of Roman art, there are few whose prototype cannot be traced to Pompeii or Herculaneum ; and even then they are often repeated, and appear as copies, of more or less merit, from some other painting. And, indeed, their style and costume are generally so different, not only from the Roman sculpture of that age, but from the character of the arabesque ornaments among which they are inserted, that I should myself have little hesitation in pronouncing them either to be copies of older Greek paintings, or works executed by Greeks in the style of their more ancient arts. But, without more data than we possess, it would be easy to write volumes on either side of such a question, without arriving at anything at last, except the opinion of the author.

In the same manner I conceive it would lead to wrong conclusions to judge of Roman painting from the specimens found at Herculaneum and Pompeii, though they are the groundwork on which all reasoning on this subject is usually founded ; for it must be recollected that these were cities of Magna Græcia, and though colonised by Romans, and

subject to Rome, the inhabitants were the descendants of the founders of Cumæ, Parthenope, and Posidonium, or of the people whom they had civilised, and that they remained Greek in reality, even under the overwhelming influence of Rome.

Modern European historians are apt to overlook the fact of this singular persistence of national character, which so often peeps out where least suspected in the history of the arts. In modern Europe we have all grown up together, from barbarism to civilisation, belonging to one great family, and acted upon by similar influences, so that we are apt to be incredulous of such immutability. Though in Biscay, Brittany, and some corners of our own islands, there are still unmingled races (and the Jews and gipsies are instances that prove the extremes of this fact), it is in Asia, however, that unchangableness is most frequently found; and notwithstanding the revolutions of ages, and changes of government and religion, the traveller is everywhere struck by the recurrence of habits and feelings which have been recorded two or three thousand years ago, and are the same to-day as they were then: it is thus at Pompeii, though the public buildings and general aspect of the city is Roman, still even in them there is a feeling not found at Rome, and the moment we pass the threshold of a private house it is impossible to mistake the Grecian form of architecture, the Greek details, and Grecian feeling that pervade every part, though mixed up with the then fashionable forms of Roman decorative art. Certainly they are not on this account the less valuable to us, but on the contrary; and the only difficulty is the paucity of data, which renders it impossible to separate the one from the other so as to judge of them separately.

Many of the paintings found there certainly possess great merit, but the drawing and execution are generally so unequal and so inferior to the conception that it is almost impossible to believe them originals. The great mosaic of the battle of the Issus is probably the most spirited and artistical production that has come down to us from antiquity; from its material it certainly is not original, but worthy of the age of the scene it represents, and from its superiority to the rest it is evident that the mechanical mode of its production rendered it a more faithful copy of the original than the others, which may have been diminished, or increased, or altered, to suit the space of wall they were to ornament, or the taste of the owner of the house.

In one respect, the Romans seem to have attempted a step even in advance of the Greeks, by painting landscapes not merely as backgrounds for figures, but in which the buildings or features of the country were the principal objects to which the figures were subordinate. It is true, indeed, that most of their efforts in this class of painting are very unsuccessful, the perspective bad, the objects badly grouped and badly made out; still it is interesting to us, for the same reason as all the other Roman arts are, namely, as the germ of an art which has since become almost as important as figure-painting itself, and which neither the Greeks, nor any of the earlier nations, seem ever to have dreamt of.

It is rather singular that the Romans never seem either to have understood or attempted to imitate the polychromic architecture of the Greeks, but instead of colouring the mouldings or members of their structural architecture, they painted architectural decorations on the flat surfaces—an error totally opposed to the practice of the Greeks and to good taste; and which, in consequence, so soon led them into a variety of absurdities, that even the authors of the Augustan age reprobate the practice: and, judging from the specimens left us in the baths of Titus and elsewhere, not without great reason, for it would be difficult to conceive anything in worse taste than the long slender columns supporting useless entablatures, and making up an architecture that it would be impossible to construct, or which, if constructed, would not only be useless but absurd, and all this represented in the worst perspective, and heaped one architectural scene on the top of the other, in “most admired confusion.” Yet this soon became the favourite mode of decoration with the Romans; it proves, as distinctly as anything else, how little true feeling for the art they had, how little knowledge of its principles, and shews to what absurd excesses they would have gone in the art, if stone and marble would only have lent themselves to their caprices: but, fortunately, the constructive necessities of buildings limit the extent to which even the worst taste would lead men at certain times.

LITERATURE.

Though historians have not yet acknowledged the fact, it is impossible that they can ever arrive at a thoroughly correct knowledge of the character of a people without an intimate appreciation of their arts, and it is almost equally hopeless to attempt to comprehend any one branch of the arts of a nation without comprehending all the others: for though a people may practise one and excel in it pre-eminently, still all the others, though neglected, have the stamp of the age upon them, and it is impossible that one should be highly intellectual or refined while the others are gross or vulgar; the difference will be generally found to exist in the superficial and mechanical, and not in the essential or intellectual, characteristics of the arts. Were it thus to be established that the Romans were original or great in their literary productions, an author would do well to pause long before he blamed their painting or architecture as wanting these qualities; but if, on the contrary, it could be proved that they did nothing great in literature, he might, *à priori*, safely predicate that they could do nothing great or original in any of the sister arts. Like a man who speaks several different languages, the change from one to the other does not alter either the power or character of his mind—what he expressed in one he expresses in the other—and though in one he may speak with fluency and elegance, and in another with hesitation and difficulty, still the ideas are the same, though the conventional sounds in which they are expressed are widely different.

I know it is fearful heresy in England to doubt the perfection of Roman literature, and that to assert it exposes one to the instant imputation of arrogance or ignorance; but the day of its supremacy is passing, and, in spite of the schools, men are beginning to think for themselves.

Markland was, I believe, the first who in this country dared to doubt if our estimate of Virgil was the correct one; and, lately, Niebuhr, the enthusiastic Roman, the man whose admiration of that people led him to spend his life in trying to elucidate their history and to understand their institutions, he has dared to say that “it was not affectation in Virgil to wish on his death-bed that his ‘Æneid’ should be burnt;” and, with his usual sagacity, he accounts for the admiration our fore-

fathers had for this poem from the fact that, when they first began to study it, they were ignorant of Homer, and had no better, indeed, scarce any other poem, to compare it with: a remark which aptly applies to our mediæval universities at the present day; their greatest boast is that they remain where Wickham, Wainfleet, and Wolsey left them, and that they have neither progressed nor changed the government of, nor the system of education in, their colleges, since they were founded by their Catholic predecessors. It is thus little wonder that they should still keep up this traditional admiration for a second-class poem, and seek to diffuse that belief through all their subordinate schools; but it surely cannot last much longer, or, if it does, there is little hope for art in this country.

Another god of their adoration is Terence, though they know that his plays are merely bad paraphrases of the new Greek comedy, with some peculiarities borrowed from the Etruscan stage,—vapid and obscene. Yet they are the only plays that the countrymen of Shakspeare think worthy of putting into the hands of their sons; and at our public schools they are not only studied, but actually acted annually by the boys.

Horace is, perhaps, the author on whom the advocates of the Romans can rest with the greatest satisfaction, and I should be unwilling to say one word in depreciation of some of his Odes: but, at the same time, I do not think a dozen of good songs sufficient to redeem the literature of a people whose empire comprised all the civilised nations of the world at that time; and I can by no means agree with Niebuhr in the praise he lavished on Catullus, whose merit consists in his copying more closely, and with more success than his compatriots, the effusions of the Grecian muse.

A more original specimen of Roman literature exists in the pages of Livy, a narrative dictated by a truly Roman spirit of vanity, and as truly Roman disregard of facts and incapability of philosophical deduction; yet, with all this, it cannot be denied that Livy seems to have persuaded himself of the truth of all he wrote: he seems earnestly to have conjured up the past to stand between him and the present, and hide him from its horrors, and to have lived among the heroic traditions of other days till his faith became confirmed in their reality. There is a *naïveté* and sincerity in this belief of the absurdities he relates, and an almost epic fervour in the mode in which he pleads to the reader for his belief and sympathy, that it is impossible to resist the charms

of his eloquence, and it is with pain we doubt what reason forbids us to believe.

The one class of literature, however, in which Rome was truly original, was her satires. There must exist, even in the most corrupt ages, some men who look with horror on the atrocities around them, and some whose indignant spirits will not allow them to conceal their feelings. Such were Juvenal and Perseus,—perhaps I might add, Horace,—but the first and greatest was Tacitus; whose works, with posterity, half redeem the horrors they describe. Every page glows with virtuous indignation at what he saw and knew,—every line breathes horror at the degeneracy of his countrymen. He paints his period in colours which only such a period could afford, and there is a gloomy grandeur in the crimes he depicts; so that what would revolt in a vulgarer or less sincerely indignant spirit, with him attains a tragic interest that fascinates the mind.

If there were no other work to prove it, that of Vitruvius ought alone to suffice to shew how little appreciation his countrymen had either of the spirit or the aim of true art. From the first page to the last of his book, there is not one expression that shews he had more sympathy for its beauties than might be possessed by an uneducated house-carpenter or stonemason: he merely collects a set of dry, formal rules from observed examples, and repeats them as if he were writing a catalogue of minerals; and when he thinks it necessary to say something of their origin, he repeats a Greek myth as if it were honest prose, neither knowing that it was poetry, nor able to substitute a rational or observed fact in its place. That nation must have been, indeed, singularly ignorant in art that could produce a work so cold and soulless as this, which shews so little knowledge of the common-sense prosaic properties of his art, and still less appreciation either of its beauties or its aims.

Had Rome attempted neither literature nor art, she would not have exposed herself to the blame she fairly lays herself open to in this respect; but in this her pretensions were only equalled by her ambition and her vanity. She attempted in everything the highest flight, without, in one instance, thinking it necessary to exercise that self-negation, or to cultivate that purity, which are indispensable to success. She had accumulated to herself the territorial empire of the world, because the nations around her were either barbarous or effete, and she thought to

do the same in art: the products of intellect, however, cannot be appropriated by the same robber-hand that may seize on worldly goods. They can neither be bought nor stolen, but must be elaborated by an earnest aspiration after purity and virtue, of which they are the reflex; and these, combined with power, can alone make them great or worthy of admiration.

As mistress of the world, with unlimited wealth and power, and a consequent feeling of conscious pre-eminence and pride, no nation had ever greater means of cultivating the arts than Rome; but no one ever neglected more her opportunities, or more shamefully abused her power. She might have raised them to an undreamed-of height on the substructure laid for them in Greece; but, as it was, she degraded them to a lower depth than had been reached by any nation anterior to her time, from the earliest period at which even tradition dawns upon us.

I cannot, of course, expect that many will agree with me in this estimate of Roman art—it is not easy to shake off the prejudices of early education: and I believe it to be far easier for a man brought up in the Roman Catholic religion to open his eyes to the errors of his church, than for an educated Englishman to free himself from his idolatry to ancient Rome. There are Protestant churches all over Europe too eager to point out the errors of their sister, but no Protestant school that dares to doubt the supremacy of its parent. I can myself recollect the time when this chapter would have offended my feelings as deeply as I expect it may those of others. To most minds every name, every word, every stone of Rome, calls up a host of associations and youthful aspirations which would throw a halo of beauty over the most distorted objects, and does so hallow everything that comes from Rome, that a second, and far more painful, education is required to uproot what is so deeply implanted in every mind. To do this a man must think deeply, and for himself; but even the strongest mind will scarcely effect this, unless he happen to live beyond the limit of western Europe. There everything bears the stamp of Rome—all ancient history ends in Rome, all modern history begins in her: and though her influence was almost always exerted for evil, much as we may learn to hate it, we cannot withdraw ourselves from the shadow of her greatness, which is everywhere around us, and pervades everything, so that there are few minds that are not overawed by it, or can see wrong in what is great. But if we would judge of art fairly and for itself, we

must carefully separate it from all extraneous influences, and judge of it only by the good that it produced, or the evils that resulted from it. Viewed in this light, and weighed with the opportunities she possessed, no nation ever did so little good and so much harm as Rome; and there is, consequently, none whose example and whose influence we ought more carefully to shun. If we used it well, no example could be more useful; no lesson more beneficial; but it is not thus that we have hitherto read the history of Rome. It has been literally to worship and admire, in the hope to emulate her power and greatness, and not to listen to her warning and avoid her crimes, in the hope that we might escape her consequent fate and doom.

APPENDIX A.

EGYPTIAN CHRONOLOGY.

THERE are few subjects which I would more unwillingly undertake to treat of in an Appendix than that of Egyptian chronology ; not only because it is so complex and extensive that it is impossible to do it justice in so limited a space as I can there allow myself, but also that with me it is, and has always been, so favourite a subject of study, that it is with pain I bring it forward where I cannot write regarding it as I could wish to do : at the same time, however, I feel that I differ so much from almost all those who have hitherto attempted to read the riddle, that I feel I am exposing myself to refutation, or, at all events, to cavil, in only stating half what I know or could say regarding it.

It is, nevertheless, so essentially important to the study of Egyptian antiquities to have some distinct notion of the history of that country, that I should be leaving my task incomplete were I not to state distinctly what I believe to be the correct mode of viewing the question. As, however, I hope some day to treat of it with the fulness it deserves, I shall here confine myself to the most general views, and those only which are requisite for understanding the statements and the tables found in the text.

Were there any book to which I could refer the reader, I might avoid the imperfect treatise with which I must content myself ; but as one set of chronologists extend the system so much as to preclude belief in the correctness of their conclusions, and the other compress it so as not to allow room for the ascertained facts, I have found it impossible from either the one or the other to comprehend the history, and consequently the artistic developement, of the nation.

When the Chevalier Bunsen's work on Egypt was announced, I felt convinced, from his acknowledged abilities in this department of inquiry and his opportunities, that I might safely put this chapter of my work into the fire. I am sorry, however, to find my views on most points differ so essentially from his, more especially with regard to his doubling Manetho's period for the Shepherd dominion, and his cruelly cutting in half the period of the Eighteenth Dynasty, that the artistic history of Egypt is, if the Chevalier be correct, utterly incomprehensible to me ; while, on the other hand, if we may follow Manetho, it presents no real difficulty : in consequence, I feel it incumbent on me to explain what the system of Manetho really is, as

it is, in fact, our only authority, and so try to place the chronology in strict accordance with the monuments.

That I might confine myself within as narrow limits as possible, I have refrained from either quoting passages entire, or from copying out the lists where they were not material for the argument; nor have I noticed the discrepancies that exist between the various copies of the lists of Manetho when they extend only to a few years, as such are of no importance to my argument: the lists, with all their variations, are easily accessible to any student who wishes to study the subject for himself. The "Chronographia" of Georgius Syncellus are in every library; they are quoted in almost every work on the ancient chronology; they are found at length in Bunsen's works: but the most useful hand-book for reference to them is the "Collection of Ancient Fragments," published by I. P. Cory, in 1832,—a work of which a new edition, with some corrections and a great many additions, is much wanted. With such numerous works to refer to, I may be excused swelling an appendix to an Essay on Art with the repetition of what has been often done, and better than I could pretend to do it.

Up to the period when Dr. Young first discovered the phonetic nature of hieroglyphics, and the system by which they were to be read was fully developed by the genius of Champollion and others, the Greek historians, Herodotus and Diodorus, were the favourite authorities with those who attempted to unravel the complex thread of Egyptian chronology; and certainly not without reason, for they possessed the inestimable advantage of suiting every preconceived theory that could be formed on the subject. Those who wished to disprove the biblical chronology had thousands of years at their command for this purpose, and those who wished to support it could easily, by a *reductio ad absurdum*, disprove the accounts of the Greeks, and thus leave the field quite clear for their own view of the case. Since, however, the hieroglyphic inscriptions have been open to us, a new style of criticism is required; a mass of new facts has been adduced which cannot be disproved or overlooked, and which will, when properly understood, fix the early chronology of Egypt on a firm and immutable basis, and prove or disprove all the other traditions or histories that have come down to us: for they are the only authentic contemporary record of that period which cannot by any possibility have been altered or disguised, and which, from their very nature, cannot be otherwise than facts. Thus the only question is, Are these facts sufficiently numerous and sufficiently explicit to answer our inquiries and to raise the veil that has hitherto hung over these dark ages? The question is not easily answered in the present imperfect state of the inquiry; but it may be asserted, that there are few facts or traditions on which the study of the Egyptian monuments has not thrown some new light. They have fixed and determined many points which were before only conjectural; though it must be confessed there are others, and most of those of a chronological nature, on which they only throw an incidental light to confirm or disprove what we learn from other sources. It is, for instance, easy to prove from the monuments that such a king lived twenty or thirty years, but unless a class of monuments be discovered of which we have yet no trace, they cannot prove that he did not reign thirty or forty; and

taking even the eighteenth dynasty, by far the most perfect and complete in monumental history, we can prove from inscriptions that they did reign two hundred or two hundred and fifty years : but we neither can prove how long they did reign, nor disprove the assertion, if made, that they reigned four hundred or five hundred years.

This appears to be the error into which most of the recent explorers in this field have fallen. Dazzled with the result of their discoveries, they have assumed the monuments would suffice, and seem to have forgotten that a critical inquiry into what is written on the subject is also indispensable. It is thus that both Champollion and Rossellini, without further inquiry, carelessly adopt the system of Manetho, as we find it in the works of the monkish chroniclers who have preserved its fragments, without attempting to restore it to the original consistency in which it must originally have been compiled from monuments similar to those we are now examining for the same purpose. Certain, indeed, it is, that every succeeding discovery that has been made, every inscription that has been read, has tended to heighten the authority of this author ; and in no one instance has he yet been convicted of error or misrepresentation : and this being the case, I would as willingly bow to his authority as the French and Tuscan *savans*, if we had the original work of Manetho, or if we could trust to those extracts of it that have come down to our time. But it will, I think, be easy to prove that this is not the case, and that they are almost as far wrong who read his lists *in extenso* as those are who reject them entirely.

Of the two sources from which the chronology of Egyptian history must be reconstructed, the first, the monuments, will not, I believe, ever suffice for that purpose ; and of the written histories, those handed down to us by the Greeks, though valuable for their historical information, are utterly worthless for our present purpose ; and we are, therefore, reduced to the system of Manetho for our only guide. The inquiry thus seems to be reduced to the question, Whether he will suffice or not. My own belief is, that he does suffice ; but not, certainly, as he is usually read : for nothing would be easier than to disprove his book as it is adopted by most authors. But, at the same time, I feel convinced, if it is properly restored, he would be found to agree so perfectly—not only with the monuments, but with all trustworthy records, sacred and profane—that the chronology of Egypt will be placed on a far more satisfactory footing than we have any right to anticipate at a period so remote from our own times.

All, therefore, that I am going to attempt here is to restore the chronology of Manetho to its original form, and to point out, so far as may be required for my purpose, its coincidence with the monuments and other authorities.

Following this course, the results I have arrived at have been such as to astonish even myself. The whole system seems so consistent and easily capable of proof, that I can only wonder that it has not been seen and adopted long ago. Still, when I think of the many men of talent who have attempted the same subject before me, and see how egregiously they have been mistaken, though bringing forward their views with the most perfect confidence of their being proved to the satisfaction of all the world, I confess I feel some diffidence of the correctness of my own ; for I cannot but assume that these men—most of them, at least—searched for truth with the same sincerity that I do, and were equally convinced that they had discovered its source.

Had my views been recently adopted, I should hesitate to publish them, but they were nearly the same before I ever visited Egypt; everything I saw there confirmed them, and I have returned to the subject again and again on each new discovery being made, and always found some fresh confirmation of them. If they are correct, they certainly place the subject in a clearer light than it has been placed before; and as such I cannot hesitate to place them before the public, and only wish it were done in a more appropriate place, and where the system had a better opportunity of being developed than in a supplementary appendix to a history of art.

Taking, therefore, Manetho as the basis of our calculations, the first point requisite would be to determine, if possible, the initial date from which his dynasties commenced; fortunately, this is no difficult matter, for the date has been preserved by Syncellus in a manner that admits of no dispute, and is announced in the following terms:—“He (Manetho*) describes in three books 113 families, distributed into thirty dynasties, who reigned 3555 years, from the year of the world 1586 to the year 5141, ending about fifteen years before the reign of Alexander the Great.”

After thus quoting the date circumstantially, Syncellus proceeds to shew its absurdity by the following calculations:—

The Deluge happened	A.M. 2242
The Egyptian dynasties having commenced.....	1586
To be deducted as improbable	656
Or they would have commenced before the flood.	
To which add the time from the flood to the dispersion ..	534
To be deducted as not probable	1190
There remains from Menes to Nectanebo.....	2365
Which sum deducted from A.M. 5141, gives for the first year of Menes, A.M. 2776.	

From the above it is evident that neither Syncellus, nor those from whom he copied, had altered the date of Manetho, as they had no motive in falsifying what they could, in their own opinion, so easily refute; and, what is more important, it cannot have been altered by any transcriber or copyist, for it becomes an integral part of a calculation, the result of which comes out correct, and there can, therefore, be no mistake in the parts. Indeed, I know of no date that comes down to us from antiquity in so unquestionable a form as this, and I cannot conceive how chronologers have so completely overlooked its importance. True it is that it accords with no received system of chronology, being too extended for some and not sufficiently extensive for others. Still its form is so distinct, that I should have thought it would have required a refutation, at least, from all inquirers into Egyptian antiquity; for I do not think it admits of a doubt but that 3555 years was the term assigned by Manetho for the duration of the thirty

* Syncellus, “Chron.” p. 98; ed. Dindorfii, Bonnæ, 1829.

dynasties, and that the first king, Menes, consequently began to reign B.C. $336 + 15 + 3555 = \text{B.C. } 3906$. Whether Manetho was or was not correct in this date is another question, to which I will return; at present I will let it stand as my initial date.*

The next thing required is to fix a limit to the inquiry at the other end of the series, and as I do not wish to extend it one year further than I am compelled to do, instead of going back to the age of Alexander, I would willingly begin either with the epoch of Danaus or of Moses, were these sufficiently determined either as to date or the king's reign in which they took place. The most ancient ascertained date, however, I fear we must assume as the destruction of the temple at Jerusalem, in the fifth year of Rehoboam, B.C. 972:† it is allowed by all inquirers that this event took place in the reign of Shishak, or Sesonchis, the first king of the twenty-second dynasty;‡ and I think the whole concurrent testimony from the Bible, Manetho, and the monuments, so complete that no one can well dispute it: and I will, therefore, without repeating arguments to which I have nothing new to add, assume it as a fixed date to start from.

Unfortunately, we do not know in which year of his reign this event took place; it could not have been before the sixth, however, for it was to him that Rehoboam fled during his father's lifetime, and as it is not probable that this event took place in the last year of Solomon and the first of Shishak, we must date his accession some years earlier. As a mean, I assume the tenth year of Shishak to coincide with 972; but this date, of course, is open to correction for a few years, from this uncertainty, and to that extent it will effect all calculations based upon it.

Almost all the authorities agree in assigning about 194 years to the nineteenth dynasty, but, unfortunately, there are considerable discrepancies in the terms of the duration of the twentieth, to determine which, with exactness, is one of the most difficult problems in Egyptian chronology. The twenty-first, however, does not present the same difficulties, and may safely be assumed to range between 130 and 140 years.

* Syncellus states that this period of 3555 commenced *about* fifteen years before Alexander the Great; if we deduct 5141 from 5500, his year of Christ, we have 359 for the death of Nectanebo, and accession of Ochus of the thirty-first dynasty, which, whatever date we adopt for Alexander, is, at least, nine years too early. I have adopted 351 for the overthrow of the native dynasty, which is that usually received.

† This date, also, is open to a slight correction: Bunsen makes it 962. The one, how-

ever, that I have adopted is the one usually received, and I believe to be the correct one.

‡ A paper has recently been published by Mr. Birch, of the British Museum, in the "Transactions of the Royal Society of Literature," in which he wishes to prove that the twenty-second dynasty were Semetic, and came from the valley of the Euphrates, which I confess I think extremely probable, if for no other reason, at least from their connexion with the kings of Jerusalem, so unlike the arrangements of a true Egyptian.

TABLE A.

NINETEENTH DYNASTY.

	Manetho in Afric.	Euseb.	Josep.	Hieron.	Old Chron.	Syn. & Eu. Canon.
Length of dynasty ..	209	194			194	
Sethos	51	55	59	55	..	
Rapsaces	61	66	66	66	..	
Amenepthes	20	8	..	40	..	18
Rameses ..	60	..	..	..	..	..
Ammenemes	5	26	..	26	..	..
Thuoris	7	7	..	7	..	17
Added together ..	204	162		194		

TWENTIETH DYNASTY.

	Afric.	Euseb.	Syncei. Can.	Euseb. Can.	Old Chron.	Interpolated dynasty in Syn. & Euseb. Canon.*
12 Diospolites	135	172				
Nechepsos	..	..	19	19	228	Thuoris 50
Psammuthis	..	..	13	13	..	Athothis, or } 28
”	..	..	4	15	..	Phousanos }
Certus	..	..	16	12	..	Kenkenes .. 39
Rhampsis	..	..	45	45	..	Ouennepthis 42 39
Amensis	..	..	26	26	..	Sousakeim .. 34
Ochyras†	..	..	14	14	..	
			137	144		193

TWENTY-FIRST DYNASTY.

	Africanus.	Eusebius.	Africanus, Canon.	Eusebius, Canon.	Armen. and Hieron.	Old Chron.
7 Tanites	130	130				121
Smendis	26	26	27	27	26	..
Psusenes	46	41	25	25	41	..
Nephelcheres	4	4	6	6	6	..
Amenophthis	9	9	9	9	9	..
Osorchor	6	6	15	15	6	..
Psinaches	9	9	9	9	9	..
Psusennes	14	35	..	..	35	..
Added together	114	130	91	91	132	

* This dynasty in the Canon is inserted between the first and second kings of the twenty-first dynasty, but the name of Thuoris, with its being stated in the text that he was the husband of Alcandra, and the king mentioned

in the “Odyssey” by Homer, identifies him with the last king of the nineteenth.

† These names are from the Canon of Syncellus and Eusebius; the number of kings is found in Manetho, but not the names.

The annexed table contains all the authorities regarding these three dynasties. With regard to the twenty-first they are tolerably consistent, except that the Armenian transposes the second and third names, and the Canon quoted by Eusebius and Syncellus introduces another king for the fifth, and omits the last, the extent of whose reign differs in the two copyists of Manetho: this, however, may be accounted for by his being the last king of his race, and he may have been deposed by some revolution or usurpation fifteen or twenty years before the first king of the next dynasty was formally proclaimed; and the first authority, therefore, may quote the years he actually sat on the throne, the next the years that elapsed between his accession and that of the next king, and the last may omit him altogether, because he was deposed. With these slight corrections the authorities agree, and we may assume that the dynasty began to reign B.C. 1107.

The next dynasty, the twentieth, is one of greater difficulty, though here this arises principally from the discordant length of time assigned to it in the *Old Chronicle*,—a document which, for reasons I will afterwards adduce, I do not think at all worthy of the credit that has been attached to it. In the present instance it is a mere assertion, which may be an error of a copyist, for the addition does not come out correct, and it is unsupported by any collateral evidence; besides, I think the source of error may be discovered in the existence of a contemporary dynasty, one or more of whose reigns may have been added to those of the twentieth, and thus have swelled the amount.

The dynasty to which I allude will be found in the Canon of Egyptian kings quoted by Syncellus and Eusebius (see Table), and consists of six kings, who reigned altogether 193 years, it is introduced by them in the Canon between the first and second kings of the twenty-first dynasty. It is, however, singularly enough, only found in the Greek lists, which are not divided into dynasties, and is omitted (the only omission) in the Armenian, and in the Latin of Jerome. Were it admitted where it is found, it would swell the twenty-first dynasty to 328 years, which all must admit is impossible; but still we have no right to deny that the kings named did reign somewhere in Egypt about this time.*

Unfortunately, the period is one of such degradation and anarchy, that the monuments throw little or no light on the subject; but they do inform us that the last kings of the twentieth dynasty were priestly usurpers, and that the first king of the twenty-first, Mandouftop, or Smendis, was a private individual, who usurped the throne, and transmitted it to his son Aasen.† This interpolated dynasty, therefore, I look upon as the royal family of Thebes, exercising a nominal sovereignty in some part of Egypt during the latter part of the twentieth and the whole of the twenty-first dynasties; and if the *Old Chronicle* followed this race for two or three reigns after the real sovereignty had been usurped by the priests, the error is accounted for.

Before leaving this subject I may as well remark, that the copyists of Manetho assign to the twentieth dynasty twelve kings, while the Canon only names six, and

* The sum of the twentieth dynasty, 135, added to the sum of this interpolated dynasty, 193, makes 328, a sum so like the 228 of the

Old Chronicle, as, perhaps, to explain the error.

† Rossellini, "*Mon. Stor.*" vol. ii. chap. 3. Champollion, "*Figeac Egypte*," 357, &c.

gives the reign of a seventh, but not his name; continuing, however, the succession through the interpolated dynasty, we have eleven names at least, and from the great length of some of the latter ones it is probable that one name may cover two reigns in some instances.

From a carefully balancing of these authorities, I think we cannot assign less to this dynasty than 135, nor more than 144; but as it is more than probable that the first or last king may have slightly overlapped him who preceded or followed him, I adopt the former. But, as I said before, I have not space to discuss minute differences.

As the nineteenth dynasty is historically one of the most important, and for chronology the most so in the whole range of Egyptian history, I shall be obliged to dwell on it at more length than on the others. Assuming 194 years for its duration, the first king, Sethos, ascended the throne about B.C. 1436. Up to the time of the reading of the hieroglyphic inscriptions he was by chronologers assumed to be the Sesostris of the Greeks, and I think correctly so. Dazzled, however, by the splendour of the monuments of the third Rhamses, Champollion assumed that he was the great monarch whose praises the Greeks celebrated. The name, however, affords no authority for this assumption; nor does the date, which cannot be brought low enough to suit the Greek historians. Besides, Champollion himself discovered that Rhamses the Great succeeded to his elder brother, who reigned four years; thus destroying all the Greeks tell us of his childhood and education, which form so essential a part of their histories. And again, one of the principal exploits of Sesostris was his naval expeditions. Now Josephus expressly speaks of this king as *ἱππικὴν καὶ ναυτικὴν ἐχὼν δύναμιν*, and all agree that it is first on the monuments of Sethos that long ships and naval combats appear. If it is objected, that the monuments of Rhamses are more splendid; this is easily answered, by quoting the half-buried temple of Medinet Habou, which is certainly equal to any single monument of the former kings. Besides, we learn from the Greeks, that his principal buildings were at Memphis, and that it was in the temple of Pthah there that he set up his statue, and therefore *it* probably was the building on which he lavished his wealth: but that has perished. His conquests, we know, were equally extensive, and his power as great. I cannot, therefore, conceive a reason why this title should have been taken from him, except to account for the silence of the Greeks regarding the hero of the eighteenth dynasty. But with equal reason we might ask, why not only the Greeks, but Manetho, pass over in silence not only the exploits, but even the name, of the great Menephtha, his father, who, both by his buildings and exploits, was almost equal to his son.

A more important point, however, for chronology than even this, is the detailed account Josephus gives of his brother Danaus. Eusebius, whose object it was to bring down the dates of the dynasties as low as he could, makes him brother of Rhamses; but both the details and the calculations of Josephus,* in all instances a preferable authority, are so distinct that I do not think it can be doubted that this is his right place; and it is not a little satisfactory to find, that in this point the Grecian chronology almost exactly coincides with the Egyptian. I do not say exactly, because I do not think the Greek affords materials for determining the date within

* "Contra Apion," i. 15.

ten or twenty years, and further criticism might alter it to that extent at least; but the received chronology coincides almost to a year.

Most of the authorities make this king's reign fifty-five years, Josephus fifty-nine. The date of Africanus may be from the expulsion of Danaus. He was succeeded by his son Rhamses, whom all agree in stating that he reigned sixty-six years. (Africanus requires five years to make up his addition.) Now it is not a little puzzling that the sculptures of Medinet Habou should make four of the sons of Sethos succeed him. The latter fact appears so certain that it cannot be controverted; but I look upon it as certain that those four sons could not be the four next kings mentioned by Manetho, as has been supposed: * for, besides the extreme improbability, perhaps I should say impossibility, of such a succession, we have the distinct authority of Manetho that Sethos (omitted in the lists for reasons to be given hereafter), the son of Amenophis, was also called Rampses, from his grandfather of that name, † which we know was the usual way of naming children in Egypt. The reigns of the four sons of Sethos must, therefore, be included as one descent in the sixty-six years of our catalogue.

This leads us to the important reign of Amenophis: I say important, because it is in his reign that Manetho places the Exode of the Jews.

Josephus is extremely angry with him for this assertion, and so are all the modern chronologists who have taken up the subject, from that day to this; but the fact is undeniable. Chæremon, as quoted by Josephus, is equally distinct on this head; and there is no authority to contradict it, unless it be assumed that Lysimachus does so: he calls the king Bocchoris; but that may be another name for the same king, or a mistake; and if neither, it does not help us, for in no list do we find that name at an earlier period.

Manetho is, however, so distinct on this subject, that I will assume it as certain, for the present at least. As I shall devote a separate article to its examination further on, I merely allude here to its bearing on Egyptian chronology.

In quoting Manetho's account of the Exode, Josephus begins,—“This king (Amenophis) was desirous of seeing the gods, as Orus, one of his predecessors in the kingdom, had seen them,” &c. The other authors, quoted by Josephus in his answer to Apion, refer to the same mysterious desire to see the gods or their appearance, or the command of oracles for the expulsion of the Jews; and Josephus in bitter irony asks, “What gods did he desire to see?” The answer appears to me clear. In the early years of that king's reign the great Cynic cycle expired (1322 B.C.), and was renewed—an event that must have been looked forward to with the utmost dread by the superstitious Egyptians; and it was just at such a period that a designing priest would take advantage of, to work on the fears of a weak king, to induce him to expel from the country a people whose monotheistic doctrines were a reproach and a scandal to the gross superstition of which he was a minister. This will not appear strange to those who know that half the religious establishments of Europe owe their foundation to the undefined dread of the return of such an epoch, which, during the eleventh century, preyed on the minds of our ancestors, and which the priesthood of that day used with much more certain effect for their own advantage, than did the namesake of the king of Egypt. But neither the motive nor the object of

* Rossellini, “Mon. Stor,” vol. ii. chap. 1.

† “Josephus contra Apion,” i. 26.

his prophecy should be unintelligible to us, when we reflect that after the lapse of 2500 years the same motives urged a priesthood, as bigoted and ten times more cruel, to work on the fears of kings (who, if not so weak, were at least as superstitious) to persecute and expel from all the countries of Europe the descendants of the same people. For then, alas! in the middle ages, no Moses arose to deliver them, and they remain to this day, in all the countries of Europe, a monument of the bigotry or the persevering cruelty of a people calling themselves Christians.

To return, however, to the subject before us. There are not, in all the catalogues of Manetho, two reigns regarding whose duration the authorities are more discrepant than regarding these two of Amenophis and his son, though, owing to the numerous extracts from Manetho or Josephus' answer to Apion, none regarding which we have more ample details. The confusion, however, is proof, if others were wanting, of some great disaster occurring in their duration. It is only Africanus and Josephus that mention the latter; but his reign seems to be included in that of his father's by Eusebius, and we probably may assign twenty years to each. But when we recollect that the father was thirteen years absent in Ethiopia, and that he returned only to witness the disasters of the Exode, we are not surprised at the confusion.

Did Amenophis perish in the Red Sea? The Bible is generally understood to assert it, though this has been doubted, and the monuments, as far as they bear on the question, confirm it, negatively at least; for there are several tombs of this dynasty that appear never to have been occupied: and if I am right in supposing the tomb of this king to be the first on the left hand as you enter the valley of Biban ul Moolk, I should say it is almost certain that its owner perished in a foreign land.

I will not dwell longer on this subject now, as I shall return to it when speaking of the Jews; but I have no hesitation in asserting, that if the Exode took place in this king's reign, there is not *one fact* in the Bible that is contradicted by anything either in the chronology or that has been gleaned from the monuments: but, on the contrary, if the usual date of the Exode, 1495 B.C., is adopted, there are facts in Egypt which no ingenuity has yet been able to reconcile with the Bible, nor do I believe they ever can be reconciled.

The other point of the return of the Cynic cycle in his reign, seems so evident as scarcely to require much to be said about it. The extracts from Theon Alexandrinus, used by Champollion and others, prove that it must have taken place 1321 or 1322 B.C. Bunsen* is quite clear that the Menophres there mentioned is the Amenophis of the lists, which I never doubted; but differs most widely from me in the reading of the twenty-sixth chapter of the first book of Josephus contra Apion, which I look upon as most undoubtedly referring to this king and his son, and giving a correct account of the Exode at this period, or ten years after the renewal of the cycle.

Assuming therefore, for the present, that the Exode took place under the third king of the nineteenth dynasty, and consequently very nearly, if not exactly, in the year 1312 B.C., we must try to calculate backwards to the next great epoch in Egyptian history, the expulsion of the Shepherds, which all authorities agree in making synchronous with the last king of the seventeenth or first of the eighteenth dynasty.

* "Egyptens Stelle," vol. i. p. 268.

Here, luckily, we have some distinct figures. In the first place Josephus repeats, three separate and distinct times, that the period that elapsed from Tethmoses to the brothers Sethos and Danaus was 393 years.* It is true, the summation of his figures only makes up 333 years for the eighteenth dynasty. In the text I tried to explain how this might be made up; but whether I am correct in this view or not, I have not a doubt that the figures of Manetho were 393, and till we have some other authority we must perforce adopt these. Even, however, if they are shewn to be incorrect, that would not affect the main point of the argument, which is the interval which took place between the expulsion of the Shepherds and that of the Jews; for it is perfectly incontrovertible that Josephus makes up the period by adding to the epoch of the eighteenth dynasty, say 393

For the reign of Sethos 59†
And for that of Rameses 66

518

We have, therefore, the date of the Exode 1312

Which, added to the above, gives for the accession of the
eighteenth dynasty 1830

Or for the accession of the first king, as quoted in the table (page 184), say 1829. This, of course, is open to some correction; as the Exode did not take place in the first year of the reign of Sethos, but more probably between the thirteenth and twentieth; which would throw that event back by that amount, if we were sure that the 518 were an addition of Josephus, not figures in the text he was quoting; but from his assigning a longer period to the two first kings of the nineteenth dynasty than any other author, I am inclined to believe he eked them out to make Manetho's figures accord with his. The difference, however, is not so great as to arrest us here.

Both Champollion and Rosellini make the accession of the eighteenth dynasty 1822 B.C., arriving at this conclusion by a totally different mode of calculation to that which I have adopted; but the mass of concurrent testimony from the monuments and the authors is so great, that I do not think it can reasonably be doubted that the Shepherds were expelled and that the great eighteenth dynasty commenced their reign in the first half of the nineteenth century before our æra.

The chronology of the Greeks confirms this view as far as it goes, inasmuch as it makes the emigration of the Inachidæ‡ about 1800 B.C. and that of Danaus about 1460. If I am perfectly correct, the latter event ought to have been thirty years later, and the former twenty to thirty years earlier.

Fortunately for the period of the Shepherds we have a date of Manetho's own, as quoted by Josephus, which is to me perfectly conclusive on the subject; for he says, "This people, who are thus called Shepherd kings, and their descendants, retained possession of Egypt during a period of five hundred and eleven years."§ Adopting therefore, as before, the date 1829 for their expulsion, we have for their invasion 2340 B.C.

* "Josephus contra Apion," ii. 2. See also i. 16, and i. 26. † Ibid. i. 26.

‡ "Amosis, who lived about the same time as Inachus the Argive, overthrew the city of

Avaris, as Ptolemæus Mendesius has related in his *Chronicles*."—Clemens Strom. cited by Eusebius in *Præp. Evang. lib. x.*

§ "Josephus contra Apion," i. 14.

The difficulty of reconciling this with any of the dynasties quoted by Africanus or Eusebius has, I believe, been the cause why this has not been generally adopted; but the difficulty will be solved by assuming that all the dynasties, from the thirteenth and the seventeenth, both inclusive, were contemporary, and comprised within this period. To this subject I shall presently return, but having now got a period which includes the first twelve dynasties, I shall first explain my views regarding them, and then return to the disastrous period of the Shepherds.

Assuming the first of Menes to be	.	.	.	.	.	3906
And the invasion of the Shepherds	.	.	.	.	.	2240

We have got for the first twelve dynasties	.	.	.	.	1566
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Say fifteen centuries; a period which, from a careful examination of the monuments and other contemporary records, I should feel inclined, on their authority alone, to assume as the most probable, and, certainly, as one which cannot be far from the truth; whereas the summation of those of Africanus gives 2451, of those of Eusebius, 2161; while both authors agree, in concluding the first book of Manetho contained only eleven dynasties, in saying that they reigned 2300 years!

The first thing that strikes the eye in looking over the early dynasties of Manetho is the extraordinary length of the reigns, averaging as follows,—

1 dynasty, 8 reigns, 253 years, average	31·6
2 „ 9 „ 302 „ „	33·5
3 „ 9 „ 214 „ „	23·6
4 „ 8 „ 284 „ „	35
5 „ 9 „ 248 „ „	27·6
6 „ 6 „ 203 „ „	34
49	30·7

A thing unexampled in the history of the world; and the most obvious way would be, perhaps, to cut off one-third of the duration of these dynasties to reduce them to the standard of our experience. I am not, however, inclined to believe that this is the true solution of the riddle; but, on the contrary, suspect that many names are omitted, and that one name frequently covers the reigns of father and son. I am certain this is the case with some in the lists of Eratosthenes, and as it was probably so here,* I would not resort to such an expedient unless necessary, though it is well to bear it in mind while reasoning on a question where, in the present state of our knowledge, certainty is impossible. On the other hand, it has long been suspected that these dynasties, or at least some of them, were contemporary, and I think it can be proved that such was the case with some at least, though certainly not with others.

My limits will not allow me to dissect each dynasty, and as we have an initial and final date for their duration, which is almost sufficient for my present purpose, I will merely recapitulate the conclusions I have arrived at on the subject.

The first dynasty, ascending the throne B.C. 3906, I conceive to have ruled over all Egypt without any rival.

They were succeeded at This, in Upper Egypt, by the second dynasty, who

* If the Turin Papyrus has been correctly read, it gives thirteen reigns during 181 years | to the sixth dynasty, instead of the six reigns and 203 years of Africanus and Eusebius.

reigned about three hundred years ; but I conceive it was during their existence that the third dynasty, the first of Memphite kings, sprung up and divided with them the upper and lower kingdom. One reason for this is, that none of the kings of these two dynasties seem to have been great or distinguished men, which is not the case with those that preceded or followed them. Another is, that Eratosthenes makes the second king of the fourth dynasty the fifteenth of Thebes, which would be impossible if they succeeded one another. A third reason is, that if my initial and final dates are correct, there is no room for this long series without curtailing the reigns. I am, however, far from thinking this point certain or fixed.

The fourth dynasty appear, however, to have ruled over all Egypt. In the first place, they were too powerful to be restrained to the lower region. Manetho calls them Memphite, and the pyramids which they built leave no doubt of the fact : at the same time they appear in the list of Theban kings handed down to us by Eratosthenes, which almost proves their possession of the upper as well as the lower kingdom. And lastly, the quantity of syenite and granite used in the Pyramids shews that they must have possessed the quarries of Upper Egypt, for we must not fancy commercial treaties between kings at that period. Their undivided rule I therefore look upon as nearly certain.

The fifth dynasty of Elephantine kings I consider to have been merely the successors of the second Thinite dynasty, who, during the supremacy of the Memphites, resided, perhaps ruled, in Nubia, as tributary or subordinate to the Memphites ; and this view is confirmed by the confusion introduced here into the lists by Eusebius, who, though quoting the right name of the dynasty, gives the names of only two kings. These are the names of two Memphite kings of the sixth dynasty according to Africanus ; this also accounts for the extraordinary length (448 years) he assigns to the fourth dynasty, as he has evidently added two dynasties together.

Putting, therefore, the fifth on one side, we come to the sixth of six Memphite kings, who succeeded the fourth, and who, for the same reasons as applied to the fourth, I believe to have ruled over all Egypt : the twentieth, twenty-first, and twenty-second kings of Eratosthenes' Theban list undoubtedly belong to this dynasty. They seem to have been powerful kings, and the name of the fourth, Phiops, I believe to be the Apap found in Upper Egypt.

So far, I think, we may proceed with tolerable certainty through about 1037 years ; or if we adopt the theory that the third dynasty did succeed the second, and was not even in part contemporary, we have an extreme date of 1351, or, more probably, something between the two. For the next six dynasties we have left a period of about 500 years, which is amply sufficient for these *rois fainéans* ; but we have not information sufficient to enable us to arrange them correctly.

The first two of these are Memphite, the last two Diospolite, and the two intermediate ones of Heracleopolis. The first is quoted by one authority as 70 days, by another as 75 years ; the next at 100, and at 146 years ; the third, 409 or 100 : for the remaining three the authorities are tolerably consistent.

The following, however, is what appears to me most probable. I reject at once the 409 years of the ninth dynasty, who, though they may have existed as long, only, it appears, came prominently forward for 100 of them. I might also reject

as improbable the 70 days of the seventh, adopting the 75 years of Eusebius, but I must always prefer the authority of Africanus to that of Eusebius; and, besides, it is so improbable that any one would quote so extraordinary a period for a dynasty as 70 days unless there was authority for it, that it appears to me more probable that it is the correct one. But be this as it may, I believe the succession to have been as follows:—First, the 75 years or 70 days of anarchy and decline of the seventh dynasty, which enabled the Heracleopolites to raise an independent sway for two dynasties, or 285 years; but contemporary with them a Memphite dynasty still lingered on for 100 or 146 years. Before the Heracleopolite dynasties became extinct I conceive that the eleventh or Diospolite dynasty arose and existed for 46 or 59 years, till this state of things was put an end to by the twelfth Diospolite dynasty, one of the most glorious in the annals of Egypt, beside whom we cannot place any contemporary dynasty, though the close of their reign was marked by the greatest misfortune that befell the Egyptians during the long period we are now treating of. The discrepancy between 160 and 245, the epochs assigned to the twelfth dynasty, I believe to have arisen from the one chronologer closing the dynasty with the Shepherd invasion, the other continuing it 85 years longer, during which time their successors no doubt still existed.

In the middle of the twelfth dynasty of Manetho we find the name of a king familiar to us, that of Sesostris, and with actions ascribed to him so similar to those related of a long subsequent monarch, that chronologists have invented many hypotheses to account for this apparent reduplication of the lists. I am willing, however, to accept the facts as they stand, and, as such, they will, on further investigation, be found to be perfectly consistent with historical truth.

It is probable that this dynasty is identical with the thirtieth to the thirty-fifth kings of the list of Eratosthenes; but, be this as it may, I have little doubt that this Sesostris is the Osortasen of the monuments, not only from the similarity of the name, and of that of his father Amenemhe or Amenemdjom, but also from the splendour of his reign, which must have preceded the Shepherd invasion: for it cannot be supposed that a Theban king could raise the Obelisk at Heliopolis, and build a temple at Karnae, during that period of disaster,* and it could not be between their expulsion and the known kings of the eighteenth dynasty.

He was much too early, however, to be known to the Greeks; but one author seems to have preserved a tradition which describes more faithfully the condition of Asia for more than 1000 years than any passage in any author I know. I shall, therefore, quote it at length.

In the first chapter of the first book of Justin's Abridgement of Trogius Pompeius, he says, after speaking of the wars of Ninus, "*Fuere quidem temporibus antiquiores (Vexoris) Sesostris Ægypti et Scythiæ Rex Tanaus, quorum alter in Pontum alter usque Ægyptum excessit, sed longinqua non finitina bella gerebant nec imperium sibi sed populis suis gloriam querebant, contentique victoria imperio abstinebant;*" and further on, after again alluding to the wars of the Egyptians and Scythians ("*primus Scythis bellum indixit Sesostris rex Ægyptius,*" &c.), he adds,

* The grottoes at Beni Hassan also belong to his reign.

book ii. chap. 3, "His (the Scythians) igitur Asia per mille quingentos annos vectigalis fuit, pendendi tributum finem Ninus rex Assyriorum imposuit."

The 1500 years is of course too much, but assuming Ninus to have reigned 1261 B.C., and I am correct in placing this king where I have, the interval of about 1150 years is quite sufficiently long to account for its not being very correctly ascertained. I believe it was his defeat, and the rich spoil the barbarians acquired, that induced them to invade Egypt, in which they were so fatally successful.

The name of the Sythian king Tanaus, mentioned by Justin, is so like the Timaios* of Manetho, that one would almost be inclined to fancy them the same. There is, however, nothing so likely to mislead as these nominal similarities, and here it is not wanted. But as I have mentioned one I must allude to even a more tempting one than this. Josephus says, in speaking of the name Hycsos, applied to the Shepherds, that the first syllable, "Hyc," meant king; the last, "sos," shepherd. Now in Moses Choronensis we find everywhere that the hero of Armenia was Haic, the contemporary and rival of Belus. The date of the latter is not known, but is as likely to have been about 2400 B.C. as not; and if so, I would translate Hycsos as descendants of Haic, which, if it were worth anything, would point to Scythia, as almost every indication does, as the country whence these invaders came.

Among the whole thirty dynasties of Manetho there are none with regard to which the authorities we have are so discordant as regarding the five from the thirteenth to the seventeenth, and none on which monuments, or other historians or traditions, throw so little light; and indeed I know of no view, except the one I have taken above, which can at all reconcile the difficulties in which every part of the question is involved.

In the first place, I do not think we have any authority for rejecting these dynasties altogether. They certainly did form a part of the system of Manetho, and though considerable differences exist between Africanus and Eusebius as to the duration of particular dynasties, still, if added together, those of Africanus make up nearly sixteen centuries, and those of Eusebius only a century and a half less; shewing, at least, that very considerable periods were ascribed to them by the original author. Still I do not think we have any authority for reading them *in extenso* as is sometimes done. For in that case, in the first place, the initial dates I have assumed from Manetho are absurd, and indeed all historical probability is offended by our accepting sixteen centuries of nameless kings who left no monuments, but who throw the previous kings and their works to an antiquity that is almost impossible.

If, therefore, we accept them at all it can only be as contemporary kings, and as such they cannot be compressed within a much less space than the five centuries that Manetho ascribes to the Shepherds; indeed, if anything, the 511 years, during which he says they possessed the country, must be probably extended some years at each end: in the first instance, to cover the time occupied in the conquest; in the second, by the long war that preceded their final expulsion; and Josephus distinctly states, that this war was waged by the kings of the Thebans and the *other kings* of Egypt.†

* "Josephus contra Apion," i. 14.

† Idem.

Assuming, therefore, that these dynasties did exist, and were contemporary with one another, the view I take of the case is this, that the thirteenth dynasty of Diospolites are the successors of the twelfth Theban dynasty, who existed, or at least who were afterwards, by the priestly genealogist, assumed to have existed, during the period of the Shepherd domination. Their period was 453 years, but probably did not commence till eighty-five years after the invasion, if for this purpose we adopt the long date of Eusebius for the twelfth dynasty, as I suggested above.

According to this view the fourteenth dynasty, or that of the Xoite kings, would consist of the lineal descendants of the Memphite royal family, and as both authorities quote their number at seventy-six kings, it is probable the short date of Africanus, 184 years, is an error of transcription, and that the long date of Eusebius, 484, is that of Manetho. Whether they existed down to the accession of the eighteenth dynasty or not is not apparent, but it is by no means impossible that the seventeenth dynasty of Eusebius and the Old Chronicle may be their successors *during* the long war, which entitled them to the appellation of a new dynasty—but this is a mere suggestion. The remaining three dynasties are of Shepherd kings, one of which must either be rejected *in toto*, or assumed as contemporary; for, taken successively, they double nearly the period during which Manetho distinctly states that the Shepherds possessed the country, which is impossible, if we are to follow Manetho, who is our only guide on the subject: the thirty-two Hellenic shepherds, who form the sixteenth dynasty of Africanus, must, therefore, be assumed to be contemporary with the dynasties that precede and follow them in the lists. Unless, indeed, the following hypothesis be admitted, which I confess appears to me to be extremely probable, namely, that these Hellenic shepherds are a race that remained in Egypt tributary to the eighteenth and nineteenth dynasties, after the kingdom was wrested from them by the native Egyptians, and that they were expelled with the Israelites B.C. 1312.

In the first place, it will be remarked that Eusebius omits this dynasty altogether; in the second place, that this period, 518 years, is exactly that which Josephus calculates as existing between the expulsion of the Shepherds and the Exode: but, which is of more importance than either of these circumstances, the monuments, particularly those of El Tell Amarna (Psinaula, as remarked above, p. 210), prove the existence of a race of foreign potentates, apparently a Mithraic or sun-worshipping race, during the most flourishing period of the eighteenth dynasty, for whose existence this hypothesis would account. But if this should not be admitted, their co-existence with the others must be insisted upon.

There only, therefore, remain the fifteenth and seventeenth dynasties of Africanus; the first existing 284 years, the second 151—together, 435 years. It is true this will not make up the period of 511 years of Manetho, but altogether the dates of these two dynasties are, to say the least of them, extremely apocryphal; for the reigns of the six kings of the fifteenth dynasty—upwards of forty-seven years each, which is nearly impossible, and the reigns of those of the seventeenth—only three years and a half each, are discrepancies I shall not attempt to reconcile, but rest content with the summation of Manetho himself, and assume that the Egyptian priests knew little, and, probably, cared less, for the particulars of the reigns of their hated enemies, though they carefully preserved the

genealogies of their own races, so as to know exactly when they lost and when they regained the sovereignty.

I reject entirely the Shepherd dynasties of Eusebius, for I think it quite evident that he altered what he found in Manetho to suit his preconceived views with regard to Joseph's appearance in Egypt during the reign of a particular king, and he thus renders the whole chronology of the period unintelligible.

Before quitting this subject, I must say a few words regarding the Old Chronicle, a document that ill deserves that title; for, as it brings the history down to the era of Alexander the Great, it must have been composed during the age of the Lagidæ, and has, therefore, little pretensions to antiquity beyond the volume of Manetho himself; and it appears to have as little title to the consideration it has received. It has, in the first place, no name to authenticate it, which, as it belongs to the Greek period, it might easily have had, had its author been a man of any note or authority. It contains no details by which its authenticity can be tested, nor does it announce one fact which can be proved in opposition to Manetho. Its one merit consists in its shortness—I mean in the shortness of the period, 443 years, into which it apparently compresses the first fifteen dynasties: this was no small merit in the eyes of the monkish chronologers who first transcribed it, and who do not, in consequence, scruple to hold it up as infinitely more authentic and trustworthy than Manetho, and modern chronologers have been too glad to echo their praises, and to rest satisfied with so convenient a guide.

Were the Old Chronicle to assert that the first fifteen dynasties existed for the period of 443 years, I should feel very much inclined to reject the authority, as inconsistent with the monuments and all other authorities; but the fact is, the Chronicle makes no such assertion.

In the first place, the Chronicle states that the thirty dynasties lasted 36,525 years, whereas adding up the figures gives us 36,341, a difference of 184 years (or, rather, of 178, allowing 6 years for the 28th, which is omitted): a difference not so material in itself, as in shewing that it was not by addition of the figures quoted that the result was arrived at; and that, therefore, these 443 years were—or, at least, might be—something else.

The whole controversy, however, rests on the following short sentence:—"After these (the demigods) are enumerated fifteen generations of the Cynic cycle, which extend to 443 years."

It then quotes the sixteenth dynasty in these terms:—"The sixteenth dynasty is of Tanites, eight generations, which lasted 190 years."

Now the mistake, for I will assume it as such, appears to have arisen from the accidental circumstance of the generations quoted being fifteen, and then the sixteenth dynasty following; had the generations been either fourteen or sixteen, the distinction between the words γενεαι and δυναστεία would have struck every one, as these words are used in direct contradistinction to one another in every sentence of the Chronicle, and are perfectly distinct here. Nor is it difficult to see what these fifteen generations are, for 15×30 is 450 years, or within 7 years of the amount quoted. But its not being exact is of little consequence, as we find Herodotus* quoting genera-

* Herodotus, ii. 142.

tions exactly in the same way ; for after valuing three hundred generations at 10,000 years, the forty-one generations that remain make 1340, whereas the amount should be $1366\frac{2}{3}$; or, in other words, when the forty-first generation was entered upon, it was counted by him as complete as in the Old Chronicle.

Still the passage stands detached and unmeaning, but the following calculation may shew what it really was meant to express. As I shewed before, the Cynic cycle was renewed B.C. 1322 ; add to this 1461, and we have for the commencement of the previous cycle B.C. 2783, from which deduct the 443 years of our authority, and there remains B.C. 2341, or the identical year in which, from Manetho, I placed the invasion of the Shepherds. The exact coincidence is, perhaps, fortuitous, but I do not think it can be doubted that what the Old Chronicler meant to express was, "that, after the demigods, kings reigned till the fifteenth generation of the Cynic cycle, or till B.C. 2341." Here he pauses, and he again begins with the new order of things that made way for the glorious period of the eighteenth dynasty.

Are, then, the sixteenth and seventeenth dynasties of the Chronicle the Shepherd dynasties ? I think not, but, on the contrary, that they were the dynasties of Egyptians, who overthrew the Shepherds, and made way for the new era of Egyptians, with whom alone the Chronicle seems to be occupied. But this I do not look upon as at all certain, or, indeed, of any consequence.

There is another Canon, or Chronicle, quoted by Castor, which it is impossible to reconcile with the other authors, and to which I only refer for the singularity of one of its assertions, which the above may, perhaps, explain.

He first quotes the first sixteen dynasties from Mineas, giving the years of each, which, added together, make up 3566 years. He then goes on to state that the second volume (of Manetho*) enumerates to the seventeenth dynasty, and contains a period of 1520 years. If for seventeen we could substitute eleven or twelve, the above would be very nearly what I have given for the dynasties in the first volume of Manetho, which treats of those kings ; but I quote it merely for the singularity of this period of 1520 years extending from Menes to a period that is supposed to represent the Shepherd invasion. And, again, we have the same epoch in Diodorus (book ii. 4) ; who states that, after Menes and two of his successors, fifty kings succeeded, who reigned more than 1400 years, taking the first three kings from Manetho, $62 + 57 + 31 = 150$, according to Africanus, or $30 + 27 + 39 = 96$ according to Eusebius, which added to the above gives about 1550 or 1600 years to Busiris ; who thus would appear to have been the great king of the twelfth dynasty. I before mentioned (page 200) the peculiarity of Diodorus giving the true date, 3400 years before his time, to the period of the great fourth pyramid-building dynasty.

I cannot, of course, examine all the calculations found in ancient authors which bear on the subject, but there is one I cannot forbear to mention, as it again

* The second volume of Manetho, according to all other authors, extends to the twentieth dynasty.

refers to this epoch. It is in Josephus (book viii. 6), where he says that "all the kings of Egypt, from Mineas, the founder of Memphis, who lived many years before Abraham, to Solomon, through a period of more than 1300 years, bore the title of Pharaoh, and took it from one Pharaoh who lived after the kings of this epoch." The interval here given again returns to the period of the twelfth dynasty and the Shepherd invasion. For Solomon's date being assumed at 1019, "more than 1300 years" would take us back to, at least, 2340; and it would appear from this that Josephus looked on the first Shepherd king as the first bearer of that title, and the founder of Memphis. In the sculpture of the eighteenth dynasty the early kings bear this title,—but do they bear it in contemporary records?

Many may be surprised at the little use I have made in the above of the list of Eratosthenes, on which Bunsen founds the whole of his chronology of the older empire. I have never lost sight of it, but I look on it as merely the translation into Greek of such a tablet as that of Abydos, or that in the chamber of the ancestors of Thothmes III. at Karnac—an enumeration of the most illustrious kings of the period: it certainly, however, often omits names, and includes two or more reigns in one. Besides, I think there is every reason to believe that the summation of the whole is that of the monk Syncellus, not of Eratosthenes, and, therefore, of no value as giving either an initial or final date. But, even if it did, I would in no instance compare the authority of a Greek stranger to that of such a native historian as Manetho. As an illustration it is valuable, but nothing more.

Had I three or four volumes to devote to this subject, instead of twenty or thirty pages, I could, of course, make all this very much clearer, and establish all my points with far greater certainty. I have, however, I hope, said enough to make it tolerably clear that Manetho, our only real authority, makes the initial date of his dynasties about B.C. 3906

The invasion of the Shepherds	2340
The accession of the eighteenth dynasty, about . .	1820
The accession of the nineteenth dynasty	1436
The Exode	1312
The accession of the twenty-second dynasty	977

If these points are fixed even approximately, the rest easily fit into their places with sufficient exactness for, at least, my present purpose; and the artistic history of this people rests on as sure a basis of chronology as that of any ancient people we know of.

I shall only add, that I do not know of any one fact gleaned from the monuments that contradicts these assumptions, or, indeed, that does not confirm them to the extent to which monumental records can confirm chronology; though in this short essay I have been obliged to omit almost entirely all allusions to this class of proof, as requiring illustrations and references far beyond what my limits would allow.

I may also add that, so far as my reading goes, I do not know of one single fact, or trustworthy assertion, in any ancient author, that militates against these views; if any should exist, nothing would give me more satisfaction than to have them pointed out.

APPENDIX B.

ON THE TIME THAT ELAPSED BETWEEN THE EXODE AND THE BUILDING OF SOLOMON'S TEMPLE.

THE cardinal point on which the greater part of the above chronology hinges is the date of 1312 B.C., for the Exode of the Jews from Egypt, which I have assumed in opposition to the generally received one of 1495. It is a subject that most men would willingly avoid interfering with, for nothing exposes a man to more suspicion, or renders his sincerity or motives more liable to cavil or misunderstanding, than attempting to correct what is assumed as sacred: it is the dread of personal consequences that has perpetuated half the errors that prevail on sacred subjects, and whose existence has done, and is doing, more harm to the cause of true religion than all the malevolence of its worst enemies can do, or ever did.

No sincere Christian, of course, doubts that the Bible was, as originally written, perfectly and literally correct, but he must have more courage than criticism who would assert that during the thousand years that elapsed between the events we are now going to discuss, and the transcription of the earliest copy of which we have any knowledge, many errors may not have crept into the sacred volume, either through the carelessness of transcribers, or from other less venial causes. The task to which every man who wishes the book to be accepted for what it really is should address himself, is to restore it to its original purity; and if this were earnestly and sedulously set about, it would not, perhaps, be found so difficult as is usually supposed; but the man that attempts it must do it without fear, either as regards the text or the consequences to himself.

The usual objection to such inquiries is, Do you dare to doubt what the inspired historians have handed down to us? Now I object, *in toto*, to the term so often used of "inspired," as applied to historians. As applied to an "inspired lawgiver," or "inspired prophet," it is intelligible enough; or it may be applied to Moses, as recording events before the deluge, of which no record or tradition may have existed in his time; but the chronicler of events that took place after the Exode had no need of inspiration to guide him, the events took place actually under the eyes of the people, and all that was required, and all that the chronicles pretend to, is to be an actual matter-of-fact record of events that actually took place: if they are anything else, they cannot be reasoned upon, and they can be of no use to any chronological inquiry, either for or

against anything that may be brought forward. But that they were originally this and nothing more, in so far as dates and facts are concerned, is what I do not doubt; but I feel, at the same time, convinced, that as we now find them they do not represent the sequence of events as they actually happened.

How little the Book of Judges enables us to fix the duration of the epoch that lasted from the Exode to the building of the temple, will perhaps be more apparent from the annexed table; and as most of the authors named in it were sincere Christians, and trying to establish the minute exactitude of the Bible, there is only one way of explaining their discrepancies, which is, that the Book of Judges does not contain the solution of the problem.

Time that elapsed from the Exode to the building of the Temple,—

According to Africanus	741
„ Syncellus	654
„ Hales	632
„ Acts of the Apostles, chap. xiii. about	615
„ (Josephus, “Ant.” 9 and 10	612)
„ Theophilus of Antioch.....	612
„ Eusebius, “Præ. Evan.”.....	600
„ (Josephus, “Ant.” 10.....	592)
„ Vossius	591
„ Perigonius	580
„ Jackson	579
„ Clemens Alexandrinus	573
„ Playfair	540
„ Hebrew text, followed by Marshman, Ussher, Houbigant, and adopted by the Church.....	480

The summation of the figures found recorded in the Bible amounts to about 495 years, to which must be added at least 100 for dates omitted, but partially known from other sources. And as this is inadmissible and in contradiction with the well-known figures in the sixth chapter of the First Book of Kings, the explanation of the discrepancy has generally been supposed to be found in the fact—now, I believe, generally acknowledged—that the Book of Judges is not one consecutive narrative, written by one hand, but three or four different books relating to contemporary events, which are now accidentally pieced together as if consecutive. The style of the language (of which I am no judge), and the breaks in the narrative, make this more than probable; so that, without denying the facts, these initial and final dates may be adjusted to almost any extent. At all events, if the received chronology of the Church arbitrarily cuts off more than a hundred years, there is no greater impropriety in cutting off two or even three hundred.

But how are we to get over the date 480, on which the received chronology rests ($1015 + 480 = 1495$)? If it agreed with the recorded events, or any sequence of them, or was confirmed by the New Testament or any other authority, it might be difficult to disturb it; but as it is contradicted by all these, and is inconsistent with the facts in the book itself, I think it must be assumed either to be an error of a copyist, or an insertion of some systematists. At all events, nine chronologers out of ten reject it without scruple when they wish to extend the period. I think therefore it must, *à priori*, at least be allowed to be as open to correction in the other direction; and if it can be shewn that, by placing the Exode where I do, the Bible

can be brought into perfect accordance with every recorded fact in Egyptian history, and its own rendered much more probable and consecutive, I do not think that these figures ought to stop us in our inquiries.

One of the most singular circumstances connected with this inquiry is the fact, that the Jews themselves, from the earliest date to which we can ascend to the present day—in the almanacs now printed—place this event in the year 1312 B.C. But as they adopt the same interval as ourselves, 480, they bring down the building of the temple to B.C. 832; while on the other hand, as their chronology is perfectly consistent from this time till that of Cyrus, and at the utmost could only be adjusted to the extent of a few years, they are forced to bring down his date to a like extent. But as that of Alexander the Great is too well fixed and known to be disturbed, they cut out the 180 years required to bring their chronology in accordance with that of the rest of the world, between his time and that of Cyrus.

There must surely have been some insuperable objection, some fixed knowledge of a fact, to induce the Jews to adopt and persevere in so clumsy a fabrication as this, and one so certain of detection and refutation. I cannot account for it otherwise than by assuming, that they knew that the Exode took place then; and as it was the initial date from which they counted, it was easier to falsify the Gentile chronology than their own; and they did so.

Another strong point is that Josephus knew, and could not conceal his knowledge, that the Exode took place under the third king of the nineteenth dynasty, and could, therefore, only be at the utmost a few years from the Jewish date above quoted. Throughout his answer to Apion he writhes under the fact; he tries to escape from it; uses irony, ridicule, and every weapon of a beaten enemy; and finally loses his temper, as men do only in such circumstances: but in vain. All his knowledge of the literature and history of the day will not serve him: it is in vain he quotes author after author; for, except the fact of Lysimachus calling the king Bocchoris instead of Amenophis, he cannot find anything to help him. And I do not think any one can carefully read through that celebrated treatise without seeing how bad a case Josephus had, and how little he could bring to refute the assertion of Manetho, which he thus tries to misunderstand, but which we cannot.

I am, of course, aware that almost all the monkish chroniclers (from Africanus downwards, through the whole of the dark ages) place the Exode very much higher; and to make the heathen facts accord with their theories, they did not hesitate to alter and falsify the lists of Manetho to the required extent,—an advantage Josephus did not dare to avail himself of in an age where criticism was still existent, but which was thought perfectly right and proper in the middle ages.*

Still all this is of secondary importance, if this new date will not accord with the facts of the Bible: its strong point, however, is, that it explains them all.

In the first place I assume (for I have not space to enter into that argument) the short date, 215 years, for the sojourn of the Israelites in Egypt, as most in accordance with genealogical collateral evidence, and as being as commonly adopted as the other of 430: the migration of Joseph would then fall in the reign of Rhamses

* See "Topography of Ancient Jerusalem," by the Author, *passim*.

the Great; and if this be so, we have Herodotus* confirming, to a singular but most satisfactory extent, the narrative in the forty-seventh chapter of Genesis, regarding Joseph's purchase of the land for the king.†

In the second place it is said, in the same chapter (verse 11), that "Joseph gave his father and his brethren possession in the land of Egypt, in the best of the land, in the land of *Rameses*." Now the first instance of this name appearing, either in the lists or on the monuments or papyri, is as applied to the father of Menephtha; and the event consequently must have taken place either in the last half of the eighteenth or first half of the nineteenth, if there is any historical value in the name at all. The same remark applies to the "treasure cities," Pithom and Raamses.‡

A third point is, the impossibility, morally speaking, of the all-powerful kings of this great epoch allowing the rebellion of their slave population and their evasion from Egypt; but nothing is more probable than the whole appears, if placed under so weak a king as he in whose reign I suppose the event to have taken place.

Chronologers have always found it to be an inexplicable difficulty to account for the fact of the conquests of the first king of the nineteenth dynasty, and his repeated marches through Palestine, being passed over in silence in the Bible: according to my view, this silence is a title of authenticity.

I have before alluded to the confirmation of the assertion of the Bible, that the pursuing king was drowned in the Red Sea: so far as Egyptian history or the monuments go, it is not only possible, but more than probable, that this was the case.

These, I believe, are all the principal facts bearing on the history of Egypt, mentioned in connexion with the sojourn of the Jews in that country. It requires much apologetic ingenuity to keep them from being positively incompatible with the old date of 1495; but they fit most easily into their places if the date is 1312.

So far, therefore, as the events anterior to the Exode are concerned, all is plain and easy; and the only difficulty is in the period after that event: and if we insist on the figures, it is, I fear, insuperable. But I think it must be admitted, that years are often counted in round numbers: 40, for instance (which, to this hour in the East, merely means "a great many"), occurs seven times at least, 80 occurs once, 20 three times, and 10 as often; besides that, the sequence of events is far from certain. There is, however, one point regarding which there could be scarcely any mistake, which is, the numbers and succession of the high priests,—who were thirteen in number, and whose names are still found in the books of Chronicles and Kings. In this respect Josephus is in perfect accordance with the Bible, and he gives us the following interesting *résumé*:§—

From the establishment of the ark in the desert to the building of the temple, thirteen high priests, during a period of 612 years, or 47 years on an average for each priest.

* Herodot. ii. 109.

† A sharp-sighted critic will scarce fail to observe, that I insisted above on the first king of the nineteenth dynasty being the Sesostris of the Greeks, and that I now use Rhamses. My own belief, however, is, that there were at least three kings so known by the Greeks; first, the great king of the twelfth,

then Sesostris Rhamses of the eighteenth, and Sethos Sesostris of the nineteenth; and that the Greeks confound the three in a most inextricable manner. But the Sesostris *par excellence* always appears to have been the last-named.

‡ Exodus, i. 11.

§ "Ant." xx. 10.

From that to the destruction of the temple, eighteen priests; during a period of 446 years, or 26 years to each priest.

From that to Antiochus Eupator, fifteen priests, during a period of 412 years, or upwards of 27 years to each.

It will not do to account for this discrepancy by saying, that the life of man was longer during the first period than the two succeeding ones, because we have the distinct testimony of David* that the life of man was not one year longer or shorter than it is now; besides, we must not attempt to apply to the Jews of this epoch a different mode of reasoning to that which we allow ourselves in speaking of contemporary nations; and this being so, the only possible solution of the difficulty appears to me the adoption of the shorter date: and if we apply the same average duration to the first that we gather from the last two, it confirms my date with almost minute exactness.

The same reasoning applies to the genealogy of David in the book of Ruth; to that of Shaul (1 Chron. vi. 22); to that from Ephraim to Nun (1 Chron. vii. 20); and, indeed, to all the genealogies of the Bible, which extend over this period: on the assumption of the long date they are humanly impossible; on the shorter they are all probable at least, and there is nothing to contradict their correctness.

Another passage explained by this view of the matter is Jephthah's taunt to the king of the Amorites (Judges xi. 26), when he claimed possession of the coasts of Arnon from a residence of 300 years. From the mode in which this is uttered, it is certain he claimed the whole time; but from his speaking in round numbers, it is possible he may have used 300 for a less period.

Against this array of facts, which might be easily extended, if it were thought worth while in an essay like the present, there is literally almost nothing that can be brought, except the three unsupported figures in the sixth chapter of the Book of Kings, which almost all chronologers have disregarded when they found them in their way. So that, on the whole, I look on it that there are few dates at this early period that are better established than the Exode of the Jews from Egypt under the reign of Amenophis, the third king of the nineteenth dynasty, in or about the year 1312 before our era.

* Psalm, xc. 10.

No. 97.



Nurhag of St. Barbara.*

APPENDIX C.

NURHAGS OF SARDINIA.

THE nurhags of Sardinia form a class of monuments belonging to the period of which this volume treats, but scarcely sufficient in importance to entitle them to a separate chapter; while, at the same time, their connexion with the Etruscan monuments is not sufficiently clear to justify their being treated of in the same place, as I was at first inclined, and indeed intended to have done.

One of the most singular circumstances connected with them is, that, notwithstanding their antiquity, for all allow that they belong to the heroic ages anterior to the Roman times, at least three thousand of them still exist or can be traced in the island to which they are peculiar.†

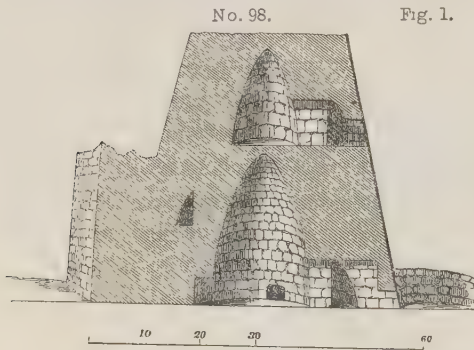
Generally speaking they consist of a circular tower, built without cement, in the form of a truncated cone: in the centre of this is a circular apartment, similar in form and construction to that of the tomb of the Atridæ (woodcut 44), and that of the Mamertine Prison (woodcut 71); over this, in the greater number of these towers, is a second apartment similar to the lower one, but smaller. The entrance is generally low, and, before reaching the central apartment, it branches off at right angles into a spiral staircase, or inclined plane, that winds upwards in the thickness of the wall from the basement to the summit: the top of the tower seems always to have been a flat terrace, to which this staircase gave access.

* From the work quoted below, plate vii.

† For this and most of the particulars found in this Appendix, see "Voyage en Sicile, par

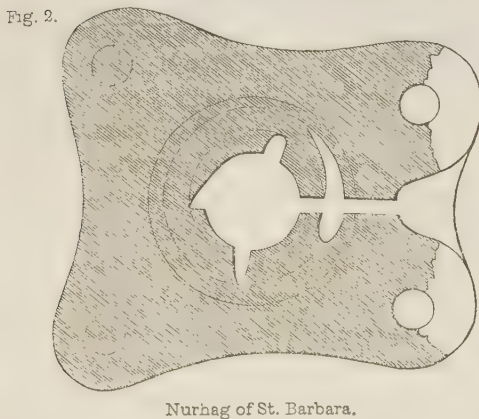
le Comte de Marmora." Paris: Bertrand, 1840.

Around this central tower are grouped one, two, three, four, or more smaller chambers, similar in form to those in the great tower, but placed at all sorts of intervals and at every conceivable angle,



but generally forming a lower terrace at about the height of the roof of the lower central dome: but though the number of these smaller ones is indefinite, there is, I believe, no instance of a nurhag with more than one two-storied tower, or where the subordinate one shews as an independent member.

Whatever theory may be formed regarding the purpose for which these singular edifices were erected, the universally circular form of their plans, the form of their domes, the sloping jambs of their doorways, and the style of masonry used in them, all point most distinctly to their belonging to a purely Pelasgic race; but it is by no means so clear that it was the same family of that race that we find in Etruria or in ancient Greece. On the contrary, there are no buildings in either of these countries that can be said to be identical with these; and



in Sardinia there are no tumuli or buildings which are absolutely identical with those found on the Continent: so that we can scarcely attempt to explain the one by reference to anything found in the other. If, however, we compare the tomb of Aruns (woodcut 78) with the nurhag of St. Barbara (woodcuts 97, 98), we can scarcely fail to be struck with a certain degree of similarity that cannot well be accidental; but the flat terrace of the lower and upper roofs, the winding stairs, the two stories of chambers, and the strange aggregation of parts in some of the larger nurhags, are peculiarities not found in anything elsewhere.

With regard to their age we have, besides the local peculiarities, which are quite decisive on this head, the tradition that assigns them to Iolas, the friend of Hercules. It is first found in a work ascribed to Aristotle (*"De Mirabilibus Auscultationibus"**). The tradition is also mentioned by Diodorus, in the fourth and fifth books of his *"History,"* and by Pausanias, in the tenth of his *"Itinerary."*

The connexion thus pointed out with Pelasgic Greece, and the mention by

* The translation of this passage by M. Petit Radet, in his *"Notice sur les Nuraghes,"* deserves transcription:—"On dit qu'il existe dans l'île de Sardaigne, entre autres beaux et nombreux édifices bâtis à la manière Grecque des anciens [or, page 80, suivant l'ancienne

manière des Grecs], des coupoles (θόλος) construites dans des proportions admirables et quelles ont été élevées par Iolas, fils d'Iphiclès; lequel ayant pris avec lui les Thespiades passa dans l'île pour l'occuper.

Pausanias of a Trojan colony, also settlers here after the destruction of their native city, confirm most strikingly all that has been hazarded on the subject in the body of this work. But perhaps the most singular assertion is that of Aristotle, that they were built "in the manner of the ancient Greeks," confirming the idea that both were Pelasgic in a most striking manner; and if Pelasgic, we can have but little hesitation in asserting that they were funereal monuments. But there are many circumstances which would prevent our understanding this as if they were burying-places in the ordinary acceptation of the term, which certainly they were not; for though in one or two instances bodies have been found buried in them,* this does not seem to have been generally the case: on the contrary, the monuments they appear most to resemble are the burying-places of the Parsees: these are circular towers with terraced roofs, on which the dead are exposed to be devoured by the fowls of the air, which may have been as old a custom as their fire-worship, of which we find traces from the earliest times. In this case, the niches in the chambers may have served as receptacles for the bones of the deceased when the flesh was gone. At all events I feel certain, that, if not simple burying-places, they were funereal temples, or expressed some idea connected with the dead; but in what particular form can only be determined satisfactorily by a minute examination of the monuments themselves.

* See Count Marmora's work, above quoted, page 152.

END OF PART I.

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